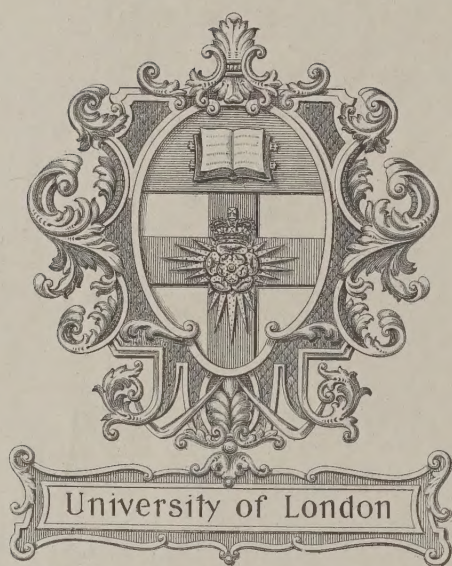






ACCOUNTS AND PAPERS:

TWENTY-ONE VOLUMES.

— (7. PART I.) —

EAST INDIA (COTTON).

Session

30 April — 28 August 1857.

VOL. XXXI.—PART I.

1857—Sess. 2.



ACCOUNTS AND PAPERS:

1857—Sess. 2.

TWENTY-ONE VOLUMES:—CONTENTS OF THE

SEVENTH VOLUME.—PART I.

N. B.—*THE* Figures at the beginning of the line, correspond with the N° at the foot of each Paper; and the Figures at the end of the line, refer to the MS. Paging of the Volumes arranged for The House of Commons.

EAST INDIA (COTTON):

296. Selection of Papers, showing the Measures taken since 1847 to promote the Cultivation of Cotton in *India*:—PART I. *Bengal* and North Western Provinces - - - - - p. 1
296. Selection of Papers, showing the Measures taken since 1847 to promote the Cultivation of Cotton in *India*:—PART II. *Madras* - p. 483
-

EAST INDIA COTTON
ACCOUNTS AND PAPERS

1857-58

THESE ARE COPIES OF THE
ORIGINALS OF THE PAPERS
AND ACCOUNTS OF THE
EAST INDIA COTTON

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EAST INDIA COTTON

EAST INDIA COTTON

Selection of Papers showing the progress taken since 1857 to promote
the Cultivation of Cotton in India:—Part I. Bengal and North
Western Provinces. 1857-58
Selection of Papers showing the progress taken since 1857 to promote
the Cultivation of Cotton in India:—Part II. Bombay
1857-58

EAST INDIA (COTTON).

RETURN to an Order of the Honourable The House of Commons,
dated 24 August 1857;—*for*,

A SELECTION “ of PAPERS showing the Measures taken since 1847 to
promote the CULTIVATION of COTTON in INDIA.”

East India House, }
24 August 1857. }

J. C. MELVILL.

(*Mr. Seymour.*)

PART I.

BENGAL AND NORTH WESTERN PROVINCES.

Ordered, by The House of Commons, to be Printed,
24 August 1857.

CONTENTS AND INDEX.

BENGAL AND NORTH WESTERN PROVINCES.

CULTIVATION IN, AND CAPABILITIES OF THESE PROVINCES FOR THE PRODUCTION OF COTTON.*

	PAGE
Court of Directors to India Government, calling for information, 10 Nov. (No. 14) 1847 -	1
From H. H. Bell, Esq., Agra - - - - -	2
R. N. C. Hamilton, Esq. Indore - - - - -	4
Lieut.-Col. Sleeman, Saugor and Nerbudda Territory - - - - -	14
Captain G. W. Hamilton, Deputy Commissioner, Saugor - - - - -	15
E. K. Elliot, Esq. Deputy Commissioner, Nursingpore - - - - -	16
Lieut. A. H. Ternan, Deputy Commissioner, Baitool - - - - -	18
Major J. Macadam, Deputy Commissioner, Jubulpore - - - - -	18
Captain D. Ross, Superintendent, Jaloun - - - - -	19
Ditto - - - - - Gwalior Ceded District - - - - -	20
Colonel J. Low, Resident at Hyderabad - - - - -	21
Translation of Answer of Nizam's Minister - - - - -	22
Captain Meadows Taylor, Shorapore - - - - -	22
Captain Dorin, Berar - - - - -	33
Captain Fenwick of Nizam's Pension Establishment - - - - -	34
Pestonjee Viccagee - - - - -	35
Lieut.-Col. Sleeman, Agent Governor-General, Jhansie - - - - -	37
Captain H. Wakeman, Seonee - - - - -	37
Sudder Board of Revenue, North Western Provinces - - - - -	38
General Abstract prepared by the Sudder Board of Revenue - - - - -	98
Sir T. Metcalfe, Commissioner, Delhi - - - - -	41
Captain E. J. Robinson, Superintendent, Bhuttee Territory - - - - -	42
N. H. E. Prowett, Esq., Paneeput - - - - -	42
C. Mackenzie, Esq., Hissar - - - - -	43
A. A. Roberts, Esq., Delhi - - - - -	44
E. T. Colvin, Esq., Rohtuk - - - - -	45
W. De H. Routh, Esq., Goorgaon - - - - -	46
General Abstract, Delhi Commissionership - - - - -	47
Statement of Price and Supply, Goorgaon - - - - -	48
A. Ross, Esq., Superintendent, Deyrah Dhoon - - - - -	49
F. B. Davidson, Esq., Sheharunpore - - - - -	49
H. W. Deane, Esq., Moozuffurnuggur - - - - -	50
C. Gubbins, Esq., Meerut - - - - -	51
A. W. C. Plowden, Esq., Boolundshuhur - - - - -	51
G. Blunt, Esq., Allyghur - - - - -	52
G. T. Lushington, Esq., Kumaon - - - - -	54
J. H. Batten, Esq., Kumaon - - - - -	54
Captain A. H. Ramsay, Kumaon - - - - -	55

* In classifying the Papers, subjects are, occasionally, unavoidably intermixed. References to the *Pages* of the Return will be more convenient than the Dates or Numbers of the Documents.

CULTIVATION IN, AND CAPABILITIES FOR COTTON—*continued.*

PAUN

From H. Pidcock, Esq., Commissioner, Rohilkund - - - - -	55
R. K. Dick, Esq., Bijnour - - - - -	58
J. C. Wilson, Esq., Moradabad - - - - -	60
C. W. Fagan, Esq., Budaon - - - - -	61
F. Williams, Esq., Bareilly - - - - -	61
F. P. Buller, Esq., Shahjehanpore - - - - -	64
W. H. Tyler, Esq., Commissioner, Agra - - - - -	64
Edward Thornton, Esq., Muttra - - - - -	65
C. C. Jackson, Esq., Agra - - - - -	65
C. Raikes, Esq., Furruckabad - - - - -	67
R. Thornton, Esq., Furruckabad - - - - -	67
H. Unwin, Esq., Mynpoory - - - - -	67
J. A. Craigie, Esq., Etawah - - - - -	68
General Abstract Statement, Agra Division - - - - -	70
R. Lowther, Esq., Commissioner, Allahabad - - - - -	71
R. Montgomery, Esq., Cawnpore - - - - -	71
J. G. Bruce, Esq., Cawnpore - - - - -	72
C. W. Kinloch, Esq., Futtehpore - - - - -	74
J. J. W. Taunton, Esq., Humeerpore - - - - -	75
F. B. Pearson, Esq., Calpee - - - - -	78
M. P. Edgeworth, Esq., Banda - - - - -	80
E. T. Tyler, Esq., Allahabad - - - - -	82
E. A. Reade, Esq., Commissioner, Benares - - - - -	84
H. C. Tucker, Esq., Gorukhpore - - - - -	85
W. Cooke, Esq., Gorukhpore - - - - -	86
J. Muir, Esq., Azimghur - - - - -	88
M. C. Ommannay, Esq., Juanpore - - - - -	88
W. E. Money, Esq., Mirzapore - - - - -	89
D. F. Macleod, Esq., Benares - - - - -	90
P. C. French, Esq., Ghazeeppore - - - - -	91
E. A. Reade, Esq., Goruckpore, 24 January 1843 - - - - -	92
M. Blount, Esq., Goruckpore, 1 May 1843 - - - - -	94
E. A. Reade, Esq., Goruckpore, 10 October 1844 - - - - -	96
M. Blount, Esq., Goruckpore, 1 October 1844 - - - - -	97
General Abstract Statement, Sudder Board of Revenue, North Western Provinces - - - - -	98
G. A. Bushby, Esq., Agent, Governor-General, Bundelcund - - - - -	100
Captain R. R. W. Ellis, Bundelcund States - - - - -	101
G. A. Bushby, Esq., Gwallior Agency - - - - -	102
Lieut.-Colonel Sir Richmond Shakespear, Scindiah's Territory - - - - -	103
Ditto - - - - - ditto - - - - -	105
Ditto - - - - - ditto - - - - -	106
Court of Directors to Governor of Bengal, 10 Nov. (9) 1847 - - - - -	107
Observations on Result of Experiments by Dr. Royle - - - - -	108
Sudder Board of Revenue, Lower Provinces - - - - -	113
J. Dunbar, Esq., Commissioner of Dacca - - - - -	114
Major F. Jenkins, Commissioner in Assam - - - - -	117
Captain C. S. Reynolds, Gawalpara - - - - -	118
A. Sconce, Esq., Chittagong - - - - -	120
General Abstract Statement, Sudder Board of Revenue, Lower Provinces - - - - -	122

EXPLANATIONS REGARDING THE ALLEGED UNPRODUCTIVENESS OF BUNDELKUND.

Letter to Commissioner of Allahabad, 4 March 1846 - - - - -	138
Commissioner of Allahabad in reply, 12 September 1846 - - - - -	139
Statement of Duty collected at Calpee, 1835-36 to 1845-46 - - - - -	140
Statement of Duty collected at Cawnpore, 1818-19 to 1830-31 - - - - -	141
Statement of extreme Prices of Cotton in Calpee Bazar monthly, 1835 to 1846 - - - - -	141
Memorandum by H. H. Bell, Esq., addressed to C. Allen, Esq., 8 October 1846 - - - - -	142
Statement of Market Price of Cotton in Mynpoory - - - - -	147
Minute by Hon. J. Thomason, Lieutenant-Governor, North Western Provinces - - - - -	147

ESTIMATE OF COTTON CULTIVATION IN THE NORTH WESTERN PROVINCES, PREPARED FOR THE GOVERNMENT OF BOMBAY - - - - -	148
Extent of Land cultivated, and probable yearly yield - - - - -	150
Extent of Cotton Cultivation - - - - -	151

EXPENSES INCURRED IN PROMOTING EXPERIMENTS FOR THE IMPROVEMENT OF COTTON, ITS CULTIVATION AND PREPARATION FOR THE MARKET - - - - -	152
---	-----

Court of Directors to Government of India, 18 May (No. 3) 1847 - - - - -	152
--	-----

Statements from Bengal—

From the arrival of the American Planters to the 30th April 1847 - - - - -	153
For 1847-48 - - - - -	155
For 1848-49 - - - - -	156
For 1849-50 - - - - -	157
For 1850-51 - - - - -	159
For 1851-52 - - - - -	160
For 1852-53 - - - - -	164
Statement from North Western Provinces, from 1 May 1842 to 30 April 1847 - - - - -	161

PROCEEDINGS OF MR. PRICE ON THE EXPERIMENTAL CULTURE OF COTTON.

IN THE DACCA DISTRICT:

Mr. Price's Report for June 1846 - - - - -	166
" July " - - - - -	167
" Aug. " - - - - -	169
" Sept. " - - - - -	170
Report of the Agri-Horticultural Society of Calcutta on six Samples of Cotton - - - - -	171
Mr. Price's Report for Oct. 1846 - - - - -	173
" Nov. " - - - - -	173
" Dec. " - - - - -	175
" Jan. 1847 - - - - -	176
" Feb. " - - - - -	177
" Mar. " - - - - -	178
Applications and Arrangements for Seeds - - - - -	179
Mr. Price's Report for April 1847 - - - - -	181
" May " - - - - -	182
" June " - - - - -	183
" July " - - - - -	183
Government of Bengal to Court of Directors, on unsatisfactory Progress of Mr. Price, 27 September (No. 14) 1848 - - - - -	184
Abstract of Mr. Price's Proceedings, January 1846 to April 1847, prepared in the Office of the Secretary to the Government of Bengal - - - - -	184
Expenses incurred by Mr. Price in 1846-47, prepared in the Office of the Accountant to the Government of Bengal - - - - -	186
Mr. Price's Report for August 1847 - - - - -	187
" Sept. " - - - - -	188
" Oct. " - - - - -	190
" Nov. " - - - - -	191
" Dec. " - - - - -	192
" Jan. 1848 - - - - -	193
Government of Bengal to Court of Directors, 8 October (No. 17) 1848 - - - - -	193
Mr. Price's Report for February 1848 - - - - -	193
" March " - - - - -	194
" April " - - - - -	195
Board of Revenue on Mr. Price's Failure at Dacca, 15 February 1848 - - - - -	195
Expenses incurred on Dacca Experiment, to the end of December 1847 - - - - -	198
Orders for continuing the Experiment; but exclusively on Patna and Bourbon Cotton; provision of Seed - - - - -	198
Mr. Price's Report, First Quarter of 1848-49 - - - - -	201
Application for Mr. Mather's Cotton Churkas - - - - -	202

EXPERIMENT OF MR. H. H. BELL—continued.		PAGE
Court of Directors to Government of India, 27 June (No. 4) 1849	- - - - -	269
Court of Directors to Government of India, 13 April (No. 2) 1852, with 200 Copies of Dr. Royle's Work on Cotton	- - - - -	270
Extract Agra Narrative, 12 May (No. 2) 1847	- - - - -	270
Government of India to Court of Directors, 1 July (No. 9) 1847	- - - - -	272
H. H. Bell, Esq., to Secretary to Government, North Western Provinces, 26 March 1847	- - - - -	272
Ditto - Assistant Secretary - - - ditto - - - 11 June 1847	- - - - -	278
Accounts of the Experimental Investment in June and July 1847	- - - - -	279
Statement of Cotton purchased	- - - - -	28
Specific Appropriation of Invoices	- - - - -	282
Cotton grown and purchased, and disposal	- - - - -	283
Detail of Charges incurred in Cleaning, Packing, &c.	- - - - -	284
Abstract of Cost, to Calcutta, of 1,625 Bales	- - - - -	287
Government of India to Court of Directors, 18 Dec. (No. 20) 1847	- - - - -	288
" " " 31 Dec. (No. 22) 1847	- - - - -	289
" " " 5 Feb. (No. 1) 1848	- - - - -	292
Memorandum of Mr. H. H. Bell on Ten Varieties of Cotton, with Samples	- - - - -	293
Government of India to Court of Directors, 18 March (No. 4) 1848: Details regarding Consignments per "Surat" and "Guisachen"	- - - - -	295
Account Current, Honourable Company, with H. H. Bell, 31 Jan. 1848	- - - - -	300
Memorandum of Charges on Cotton, per "Surat" and "Guisachen,"	- - - - -	301
Note of Claims by Hurloll Sait	- - - - -	302
H. H. Bell, Esq., in Account Current with Messrs. Mackillop, Stewart, & Co, 4 Dec. 1847,	- - - - -	302
Statement from Messrs. Mackillop, Stewart & Co.	- - - - -	303
Invoice of 845 Bales per "Surat"	- - - - -	303
" 813 whole and 5 half bales per "Guisachen"	- - - - -	304
Government of India to Court of Directors, 25 March (No. 6) 1848	- - - - -	305
Memorandum of First Experiment, from Mr. Bell	- - - - -	306
Government of India to Court of Directors, 30 Sept. (No. 20) 1848: Discontinuance of Advances to Mr. Bell	- - - - -	307
Secretary to Government North Western Provinces (Duties in Native States), 31 March 1848,	- - - - -	307
" " (Review of Experiments), 19 May 1848,	- - - - -	311
H. H. Bell, Esq., Summary of his Proceedings, 27 April 1848	- - - - -	312
Reports on Invoices and Samples, Messrs. N. Duckworth & Co., 6 Feb. 1846	- - - - -	317
Ditto - - - - - Ditto - - - 6 May 1846	- - - - -	317
Ditto - - - Messrs. Tetley to Dr. Royle, 24 July 1847	- - - - -	317
Ditto - - - Liverpool, 10 June 1847	- - - - -	318
Ditto - - - S. G. Rathbone, Esq.	- - - - -	318
H. H. Bell, Esq., to Messrs. Rathbone Brothers & Co.	- - - - -	318
Rathbone Brothers & Co., to H. H. Bell, Esq.: Report on Cotton per "Surat,"	- - - - -	319
Ditto - - - to - - - ditto - - - 19 February 1848,	- - - - -	319
Ditto - - - to - - - ditto - - - 23 February 1848,	- - - - -	319
Ditto - - - to - - - ditto - - - Report on Cotton per "Guisachen,"	- - - - -	320
Ditto - - - to - - - J. C. Melvill, Esq., Report on Cotton per "Surat,"	- - - - -	321
Report of Mr. J. A. Turner on Cotton from Mr. Bell, 2 March 1848	- - - - -	322
Report of Mr. Bazley on Cotton from Mr. Bell, 1 March 1848	- - - - -	322
Messrs. Rathbone Brothers to J. C. Melvill, Esq.: Valuation of the above	- - - - -	322
H. H. Bell, Esq., to Secretary to Government, Agra (Proposal for closing the Experiments), 1 May 1848	- - - - -	323
Extract Agra Narrative (Extension of Time of Payment by Mr. Bell), 26 December (No. 4) 1849	- - - - -	325
Extract Agra Narrative (Adjustment of Accounts, 1847-48), 20 October (No. 3) 1851	- - - - -	328
Account of Cotton Experiment under C. Allen, Esq., C. S. as made over to Mr. Bell, 4 November 1850	- - - - -	334
Disbursements, August 1848 to October 1850, dated 4 November 1850	- - - - -	335
Realisation of Plant Balances, and Statement of Arrears, 31 October 1850	- - - - -	335

	PAGE
EXPERIMENT OF MR. H. H. BELL—continued.	
Return of Stores to Agra Magazine - - - - -	336
Account Sales of 102 Bales of Cotton per "Palestine" - - - - -	336
Memorandum of Account, with Accountant's Remarks, dated 31 March 1851 - - - - -	337
Proceedings after the death of Mr. Bell - - - - -	339
 EMPLOYMENT OF DR. SILL IN THE JULLUNDUR DOAB, TO ASCERTAIN ITS CAPABILITIES FOR COTTON.	
Governor-General Lord Hardinge, to Court of Directors, 14 August 1847 - - - - -	346
Report of J. Lawrence, Esq., Commissioner and Superintendent, Trans-Sutlej States, 19 March 1847 - - - - -	347
Notes of Information from J. Lawrence, Esq. - - - - -	351
Statement, showing cost of an Acre of Cotton Cultivation in the Delhi and Jullundur Districts - - - - -	354
H. Vansittart, Esq., Deputy Commissioner, Jullundur, 21 December 1848 - - - - -	355
H. Sill, Esq. to J. Lawrence, Esq., Report, 27 January 1847 - - - - -	356
Robert Cust, Esq. to J. Lawrence, Esq., Hoshiarpore, 9 February 1847 - - - - -	358
Report from Messrs. J. R. Tetley & Sons on Jullundur Cotton - - - - -	360
 INCORRECTNESS OF THE IMPRESSION THAT CONSIDERABLE QUANTITIES OF COTTON WOOL ARE TRANSPORTED THROUGH NEPAUL INTO THIBET - - - - -	
 EXPERIMENTS ON MEXICAN SEED FROM COIMBATORE, BY MR. J. G. BRUCE AT CAWNPORE - - - - -	
 EFFORTS IN THE SIKKIM MORUNG ; DARJEELING - - - - -	
 ENCOURAGEMENT ACCORDED TO MR. J. MATHER, THE INVENTOR OF IMPROVEMENTS ON THE NATIVE CHURKA.	
Government of India to Court of Directors, 21 October (No. 56) 1848 - - - - -	367
Report of F. W. Simms, Esq., on the Machine, 10 January 1848 - - - - -	368
Report of Mr. Munro, Carding Master, and Mr. A. Morrison, Spinning Master, Fort Glo'ster, 9 February 1848 - - - - -	369
Further Report of F. W. Simms, Esq., suggesting Alterations, 7 August 1848 - - - - -	371
Contingent Bill of Mr. Mather - - - - -	376
J. H. Mather, Esq., Secretary, Government of India (Application in consequence of success), 28 September 1848 - - - - -	379
Minute of Lord Dalhousie, 10 October 1848 - - - - -	381
Secretary Government of India to H. Mather, Esq. (Employment to construct Machines), 21 October 1848 - - - - -	381
Measures for construction of the Machines, and their distribution - - - - -	382
Memorandum by Mr. Mather: Directions for setting-up - - - - -	389
Report on Mr. Mather's Churkas by H. H. Bell, Esq., Agra - - - - -	399
Report on Mr. Mather's Churkas by Captain Oldfield, Agra - - - - -	402
F. W. Simms, Esq., to Under Secretary to Government of India, 20 September 1849: Observations on the above Reports from Agra - - - - -	404
J. Fraser, Esq., Assistant Civil Engineer: Report on Mr. Mather's Proceedings - - - - -	405
J. H. Mather, Esq., to F. W. Simms, Esq.: Reply to Agra Reports, 19 September 1846 - - - - -	406
Mr. Bell's Statements and Mr. Mather's Remarks - - - - -	408
Extract, J. H. Mather, Esq., to H. H. Bell, Esq., 30 March 1849 - - - - -	411
Mr. Allen's Statement of Proceedings of Committee at Agra - - - - -	412
Memorandum of Mr. Mather's proposed Alterations, and Description of a Cotton Thresher, 25 August 1847 - - - - -	414
Completion and Distribution of 96 Churkas - - - - -	416
Facilities afforded to Mr. Mather at the Iron Bridge Yard - - - - -	416
Use of 12 Machines granted to Mr. Mather for trial - - - - -	432
Mr. Mather's Instructions for setting up the Machines - - - - -	436
Disposal of the residue of Mr. Mather's Machines - - - - -	437
Failure of the Machines at Bombay - - - - -	439
Extract of Memorandum by Revenue Secretary, Bombay - - - - -	440
Note by A. R. Young, Esq., Under Secretary to Government of India, 26 October 1852 - - - - -	442

PROCEEDINGS REGARDING OFFERS OF PRIZES FOR THE BEST COTTON-CLEANING MACHINERY, AT THE INSTANCE OF THE AGRICULTURAL SOCIETY OF CALCUTTA - - - - -	447
Extract, Government of India to Court of Directors, 13 April (No. 17) 1850 - - - - -	447
Original Proposition of the Society to Government, 15 August 1849 - - - - -	447
Report of Committee for proposing the Prize, 24 June 1849 - - - - -	448
Offer of 5,000 Rupees by Government, 1 September 1849 - - - - -	449
Advertisement - - - - -	451
Government of India to Court of Directors, 27 September (No. 65) 1853 - - - - -	452
Result of Competition for the Prize - - - - -	452
Report of Special Committee, 17 June 1852 - - - - -	454
Table of Experiments - - - - -	457
DISTRIBUTION OF "COTTAGE SAW GINS" SENT OUT BY THE COURT OF DIRECTORS AT THE RECOMMENDATION OF THE MANCHESTER COMMERCIAL ASSOCIATION.	
Court of Directors to Government of India, 27 June (No. 5) 1849 - - - - -	461
Vice-President, Manchester Commercial Association, to Chairman, Court of Directors - - - - -	461
Dr. Royle's Report on Trial of the Cottage-gins - - - - -	462
Reports of Manufacturers on the working of the Cotton ginned by the Saw Gins - - - - -	465
Report of Mr. Petrie - - - - -	466
Purchase and despatch of the Gins to India - - - - -	468
Memorandum of Mr. Petrie for setting them up and working them - - - - -	469
Conflicting Reports of Mr. Bell, of Agra, and Mr. Price, of Dacca, on trials of them - - - - -	470
LETTER OF MR. ROBERT BURN REGARDING HIS ROLLER-GIN - - - - -	474

East India House, }
24 August 1857. }

J. Mill,
Examiner of India Correspondence.

SELECTION of PAPERS showing the Measures taken since 1847 to promote
the CULTIVATION of COTTON in INDIA.

— I. —

BENGAL AND NORTH WESTERN PROVINCES.

I,
Bengal and
North Western
Provinces.

Revenue Department, 10 November (No. 14) 1847.

Our Governor-General of India in Council.

Para. 1. WE are desirous of procuring information as to the extent to which India might be capable of supplying cotton, in the event of an increased demand for it, either in this country or elsewhere; and we have accordingly framed the queries in the margin,* which we wish you to forward to the Lieutenant-Governor of the North-Western Provinces for circulation among the collectors of land revenue, and the political agents resident in such native states as are known to produce cotton, with instructions to furnish concise replies on the several points indicated.

2. We have forwarded communications to the same effect to the Governments of Bengal, Fort St. George, and Bombay.

We are, &c.
(signed) *H. St. G. Tucker,*
J. L. Lushington,
&c. &c.

London, 10 November 1847.

Fort William, Home Department, Revenue, 15 January 1848.

Resolution.—Read a despatch from the Honourable the Court of Directors, No. 14, dated 10th November 1847, forwarding queries, with the view of obtaining information as to the extent to which India might be capable of supplying cotton in the event of an increased demand for it in England.

Ordered, That a copy of the above despatch be transmitted to the Foreign Department, for such orders as may be necessary in that department, with a suggestion that copies of the queries may be communicated to the Resident at Hyderabad, for replies, as regards Oomraotee and other marts in the Nizam's country; and that a reference be also made to the Superintendent of the Jul-lender Doab, for information as regards that territory.

- * 1. What is the price of cotton, freed from seed, at the principal mart or marts in your district?
2. At what price does the ryot sell his cotton, cleaned or uncleaned; and with or without advances?
3. What is the expense of cleaning cotton by the churka or foot-roller, or by any other method which may be in use?
4. What are the expenses of conveying cotton to the nearest port for shipment?
5. What is the average produce of cotton per beega or acre?
6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried, in the event of an increased demand?

N.B.—The beega, maund, and rupee used in answering these questions must be defined.

I.

Bengal and
North Western
Provinces.

(No. 75.)

From *G. A. Bushby*, Esq., Secretary to the Government of India, Home Department, to the Secretary to the Government of the North Western Provinces.

Sir,

Home Department.

I AM directed by the Governor-General in Council to transmit to you the accompanying copy of a despatch from the Honourable the Court of Directors, No. 14, dated 10th November last, and to request that the Honourable the Lieutenant-Governor will cause to be obtained and furnished to the Government of India the replies of the proper officers to the queries framed by the Honourable Court, in regard to the extent to which India might be capable of supplying cotton, in the event of an increased demand for it, either in England or elsewhere.

I have, &c.

(signed) *G. A. Bushby*,
Secy. to Govt. of India.

Fort William, 15 January 1848.

(No. 896 of 1848.)

From *J. Thornton*, Esq., Secretary to the Government of the North-Western Provinces, to *G. A. Bushby*, Esq., Secretary to the Government of India, Home Department, Fort William.

Sir,

Revenue Depart-
ment.

IN reply to your letter of the 15th January last, No. 75, regarding the extent to which India may be capable of supplying cotton, in the event of an increased demand for it either in England or elsewhere, I am directed by the Honourable the Lieutenant-Governor to transmit copy of a letter from Mr. H. H. Bell on the subject, and to state that attempts have been made to obtain information in other quarters; but that it is not expected that replies will be furnished of a more trustworthy or complete character than the accompanying.

I have, &c.

(signed) *J. Thornton*,
Secy. to the Govt. N. W. P.

Agra, 6 March 1848.

(No. 1 in No. 896, of 1848.)

From *H. Hamilton Bell*, Esq., Agra, to *J. Thornton*, Esq., Secretary to Government, North Western Provinces, Agra.

Sir,

I HAVE the honour to acknowledge the receipt of your letter, No. 530, of 1848, of the 12th instant, enclosing a note of certain queries connected with the production of cotton in India, to which the Honourable the Court of Directors desire a reply.

Query 1st. What is the price of cotton, freed from seed, at the principal mart or marts in your district?

At Agra this year, the prices have varied from 9 rupees to Rs. 7. 8. per Company's maund of 80 rupees to the seer. The bazar usage, however, has established the practice of weighing from 42 to 44 seers for a maund, instead of 40 seers, the higher rate being submitted to by the seller in a dull market, the lower insisted on as the extreme allowance when the demand is active. These rates must generally be taken as the price of the produce of the vicinity, that is of Agra, and contiguous zillahs, for the importations of this season from the independent or protected states to the south-westward are scarcely commenced, and will be very limited.

It may be remarked that the opening prices are generally of a speculative character, and this season they were high from a persuasion the crop would prove short, as has been the case; but this has been since then met by the depressed state of trade, and gradually the price has receded to Rs. 7. 8. to Rs. 7. 10. in the great bazars. The prices, when the cotton comes to market, almost entirely depend on the advice from Mirzapore, the great cotton mart of the country.

The

The prices quoted chiefly refer to the districts near Agra; as yet but little cotton has arrived from the states to the south-west, and it is understood the supplies thence will, this season, be very limited, partly, it is stated, from short crops, and partly, as is said, from the trade having taken another direction towards Bombay, and also through Bekaneer and Jesulmeer to Roree Bhukkur on the Indus.

2d. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?

The price at which the ryot sells his cotton is entirely governed by the principles above noticed, when the speculative prices of the approaching crop are determined; about September the village bunnahs contract with the cultivators for their growing crops, at something not very materially lower for early deliveries, and this invariably under advances, sometimes of the whole amount of the engagement, according to the price agreed upon; subsequently the ruling prices in the great bazars determine the village rates; the local dealers being the purchasers by private bargains, or in the village market. In the districts near Agra, cotton is almost invariably sold freed from seed.

3d. What is the expense of cleaning cotton by the churka or foot-roller, or by any other method which may be in use?

The charge of seeding cotton by the churka, the only mode in use here, may be stated as about 12 annas per maund; less would hardly be fairly remunerative for labour, as it is rather active work to turn out five seers per day. In the Company's cotton experiment here, although there are some men who manage to do eight seers per diem, the average can hardly be taken above four seers. In some cases the seed is given in payment, but not where this is in considerable consumption and readily sold, the use for feeding cattle being nearly confined to the cold season; assuming 100 maunds of *kupas* to yield, of clean cotton, 30 maunds, there would remain of seed, 70 maunds, which at 55 seers per rupee, the present selling price in the bazar would realise Rs. 50. 14. 9., whereas, seeding 30 maunds of cotton at 12 annas per maund would cost Rs. 22. 8., or not more than two-fifths. It is only, however, in the neighbouring large cities that seed is saleable in quantity, the expense of carriage being a bar to its transport to a distance.

4th. What are the expenses of conveying cotton to the nearest port for shipment?

From Agra cotton is rarely sent below Mirzapore for a market, and I believe never below Ghazeepore and Patna by the native merchant. Generally, their business is conducted at less charge than by Europeans, and the conveyance from hence to a port of shipment, Calcutta, can hardly be assumed higher than the rate paid in the Government cotton experiment in these provinces. In 1847, this was Co.'s Rs. 2. 4. per bale of 300 lbs., and with petty charges equivalent to Rs. 0. 10. 4. per Company's maund. If the terms "expenses of conveying" are intended to comprise insurance, $4\frac{1}{2}$ per cent. on the invoice must be added.

5th. What is the average produce of cotton per beega or acre?

It is extremely difficult to state the produce per beega, but perhaps $1\frac{1}{2}$ Company's maund per beega of one-fifth of an acre may be assumed as a fair average under good culture; two maunds per beega would, however, be only a moderate return here, in my opinion, under careful management. The cultivation, when within walled enclosures, has yielded more than this in my experiments, whilst in *khates** much superior in appearance, at least not having the same protection, the return has been much less. There is no cultivation so exposed to be pilfered unremarked, and none which is so much the object of plunder. I conceive 600 lbs. of unseeded cotton per acre not at all an extravagant average.

6th. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried, in the event of an increased demand?

In the districts with which I am acquainted in the vicinity of Agra, the cultivation is assumed to be one-fourth of the khureef crop. I imagine the inability of the ryots to weed the crop is the only impediment to increased cultivation, and its extension seems to me to be dependent on this alone, provided the prices are remunerating. This, however, is a complete bar generally, for unless the cotton has been well weeded once or twice before the rains fairly set in, a complete failure is expected, and my own experience fully bears out this opinion. This difficulty is of a character to be overcome, and apparently might be by sowing the cotton in drills and weeding by a hoe, drawn by a bullock or tattoo, as will be determined by experiment the ensuing season. We may, I believe, assume $7\frac{1}{2}$ Co.'s rupees per Company's maund to pay the ryot, although scarcely more, and certainly not sufficiently so to render it a preferential cultivation; still, as it is generally the source from which the
ryot

* Fields.

i.
Bengal and
North Western
Provinces.

ryot anticipates his means for payment of his khurreef kists, it will be steadily maintained under common circumstances.

I believe these remarks embrace all the points noticed in the queries of the Honourable the Court of Directors.

I have, &c.
(signed) *H. Hamilton Bell.*

(True copy.)
(signed) *J. Thornton,*
Secretary to the Government, North Western Provinces.

Home Department, Revenue.—No. 13 of 1848.

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

IN continuation of our despatch, No. 5, of 1848, dated the 25th March, we have the honour to transmit the accompanying letter from the Resident at Indore, communicating information regarding the culture of cotton in Malwa.

We have, &c.
(signed) *Dalhousie.*
F. Millett.
J. H. Littler.

Fort William,
4 July 1848.

(No. 1468 of 1845.)

EXTRACT from the Proceedings of the Right Honourable the Governor General of India in Council, in the Foreign Department, under date the 17th June 1848.

Read a letter and enclosure from the Resident at Indore, No. 37, dated 18th April, submitting information regarding the culture of cotton in Malwa.

Ordered, That a copy of the foregoing be transmitted to the Home Department with reference to the Extract from that Department, dated the 15th January last, No. 20.

(True Extract.)
(signed) *P. Melvill,*
Under Secretary to the Government of India.

(No. 37 of 1848.)

From *R. N. C. Hamilton*, Esq., Resident at Indore, to *H. M. Elliot*, Esq., Secretary to the Government of India.

Sir,

General, No. 507.

I HAVE now the honour to forward for submission to the Right Honourable the Governor-General of India, information regarding the culture of cotton in Malwa, arranged in replies to the questions put by the Honourable Court of Directors.

2. I have endeavoured to condense in a tabular form the information collected from various quarters so as to show the statistics in each district of Malwa, Nimar, Bhopal, and other states within the circle of this Residency.

3. Having during my several annual tours occupied myself in ascertaining the extent and nature of the cotton trade, and of the species of cotton raised in Malwa, I believe the information now transmitted may be relied upon.

4. Opium during the last ten years has almost superseded cotton, still there has always been a good deal produced, and attention is again being turned to cotton in consequence of the

the fall in opium: but the difficulty the producer in Malwa has to overcome is not in the cultivation of the plant, but in exporting his cotton to a mart.

5. I was much struck last February to find when at Sutwass in Kantaphore, about 33 miles from Indore, in the upper valley of Nimar, on the right bank of the Nerbudda, a large quantity of cotton about to be sent to Mirzapore via Hoshungabad and Saugor; the cost of the cotton at Sutwass was 22 rupees per bojah of 4 Pucka maunds, and the cost of land carriage 11 rupees, so that at Mirzapore the cost of the cotton would be about 11 rupees the cwt., or 2 $\frac{1}{2}$ d. per pound avoirdupois at Mirzapore.

6. The resources of India suitable for exportation can never be brought into a foreign market with a remunerating return until something is done to improve and accelerate the means of intercommunication.

7. It seems almost incredible, but it is a fact, that it actually takes a longer time to convey the cotton to a port than to rear the plant, yet the distance to be travelled in India for this purpose is now traversed in Europe in a few hours, the cotton-growing districts of Malwa not being 400 miles from the port of Bombay, and though two months would be consumed in accomplishing this distance, still Mirzapore on the Ganges is now resorted to, that mart being upwards of 400 miles distant, after which the cotton has to be conveyed by the river to Calcutta.

8. The central states between the Satpoora range, or between the Taptee and Delhi, or those of Nimar, Malwa, Marwar, Rajpootana, Jeypore, Kotah, Boondy and Bhopal, have no water carriage for their commerce; like the Doab, Rohilkund, Oude, or Benares provinces, they depend upon the slow marches of bullocks or of camels to convey their products, and from the expenses of transport, they are almost excluded from participating in the benefits of commerce.

9. Surely then these are the districts towards which the science, the ingenuity, the skill and capital of Britain, should be turned, not only as most likely to improve the social and commercial condition of the people, but also as most likely, from the absence of competition, to yield a fair return on the outlay.

10. That which the British Government should undertake, and which the native states on the line would if required aid with their contributions, is one main line or trunk railway from Bombay to Delhi. Our Government must take the initiative, the works should be placed under English superintendence, not suffered to risk the trials, vexatious and disgusting jobbery of unscrupulous committees, to whose management no native merchant in the interior will ever now entrust a fraction, and whose reputation, I say in sorrow, is one of the most painful and distressing in remote parts, where once the word of a British merchant was accepted unquestioned and sacredly regarded.

11. It is only the Government and its guarantee that can be expected to draw native chiefs and monied men in the interior into associations for the promotion of public works; and I would strongly urge upon the consideration of his Lordship in Council the desirability of framing some scheme for the part of the vast empire to which I have alluded, by which the benefit of rapid intercommunication might be extended, with its train of social, commercial and political advantages, in which the Government, the chiefs, and individuals might be combined, and the works carried on by able and experienced Europeans under the countenance and protection of the Government local functionaries.

Indore Residency, }
18 April 1848. }

I have, &c.
(signed) R. N. C. Hamilton,
Resident.

I.
Bengal and
North Western
Provinces.

REPLIES to the QUESTIONS put by the Honourable Court of Directors.

NAMES	1.	2.	3.
of DISTRICTS.	What was the price of cotton, freed from seed, in your district last year at this season, and what is it now ?	At what rate do the ryots and cultivators sell cotton freed from seed, if paid in advance, and what if not paid in advance ?	What are the expenses of separating the seed from the cotton by (churkee) distaff, or any other machine used in this country ?
Indore Proper -	It was 7 seers per rupee last year, and now sells at 15 seers.	The husbandman does not separate cotton from seed, and with seed it is sold at 16 seers per maunee; if an advance be taken, it sells a quarter less, <i>i.e.</i> 12 rupees per maunee.	Churkee is the only machine; expense, 4 rupees per maunee.
Samaire -	6 seers per rupee last year, 5 seers per rupee now.	At 16 seers per maunee, not cleaned of seed; no advance is made.	Churkee the only machine; expense, <i>Rs.</i> 2. 4.
Mahidpore -	27 rupees per maunee last year, 42 rupees this year.	At 39 to 42 rupees per maunee this year, 2 rupees less if paid in advance.	Churkee the only machine; expense, 2 rupees per maunee.
Rampoora -	4½ seers per rupee at Rampoora, 1½ per rupee at Munassa.	No advance is ever made in this district; cotton, with seed, 21½ rupees per maunee without its seed.	Churkee the only machine; <i>Rs.</i> 3. 8. per maunee, the expense of separating seed.
Mulharghur -	3½ rupees per Kutcha maund last year, 4 Salim Shae rupees now.	19 rupees per maunee; no advance made.	Churkee the only machine; expense, 3 annas per maund Kutcha.
Sunjeit -	3 Kutcha rupees per maund last year, 3½ this year.	14 Kutcha rupees per maund; no advance made.	Churkee the only machine; expense, 2 annas per maund Kutcha.
Burrowda -	<i>Rs.</i> 2. 12. per maund last year, 3½ this year.	With seed, on advance, 17 rupees; without seed, 19 rupees per maunee.	Churkee the only machine; expense, 4 annas per Kutcha maund.
Jourah -	<i>Rs.</i> 3. 4. per maund last year, 4 rupees this year.	On advance 18 rupees, otherwise 20 rupees per maunee.	Churkee the only machine; expense, 4 annas per maund.

REPLIES to the QUESTIONS put by the Honourable Court of Directors.

4.	5.	6.	7.
What are the expenses of transporting cotton from your district to Bombay, Surat, Tunkaria Bunder, Mirzapore, or any other market, and to what port or market is it sent the most?	How much is the average produce of cotton in a beegah?	How much land in your district is under cotton cultivation, and to what extent could it be increased?	What is the measure, currency, the weight of seer, maund and maunee in your district?
It goes from Indore to Mirzapore, and not elsewhere; a cart carrying 5 bojas is hired for 55 rupees, and 5 rupees of duty must be added.	In the best land a maunee, and in bad 6 maunds, one produce.	5,000 beegahs are under cotton cultivation, and 1,000 more could be added.	110 cubits square make a beegah; a seer 82 Halee rupees; a Kutcha maund is 20 seers; 12 Kutcha or 6 Puckah maunds make a maunee; the currency is Halee rupees; a bojah is 4 Pucka maunds, about 3 cwt.; the Hal and Co.'s rupees are nearly par.
Very little cultivated, and often brought from Indore for use; sent nowhere.	2 Kutcha maunds produce of one beegah.	Only 200 or 300 beegahs are now under cotton, but it could be extensively increased.	The seer 80 Halee rupees; 1 Kutcha maund 20, and Pucka 40 seers; 12 Kutcha or 6 Pucka maunds a maunee; bojah 4 Pucka maunds; Halee currency.
It is transported from Mahidpore to Kalpie, or Mirzapore, at the additional cost of 2½ rupees per maund. In transporting it to Tunkaria Bunder, Surat or Baroch, Rs. 1. 4. per maund would be the expense; but here the experiment has never been tried. From Rutlam, Kochrode and Burnuggur, it is often sent to those ports.	6 maunds, of 18 seers each, in a beegah, including seed; cleared of seed it remains 1½ maund; the worst produce is 4 maunds, which gives 1 maund of cotton without seed.	About 10,000 to 12,000 beegahs are now sown with cotton, about 2,000 more could be added; it is capable of still further increase, as it can grow in the Jowar, Moong and Thoor fields.	5½ square cubits make a biswahsee; 5½ cubits wide and 105 long make a biswah; 20 square biswahs make a beegah; a seer 80 Halee rupees; a maund 18 seers, and 12 maunds of this weight is a maunee; the currency is Oojein or Indore rupees, known as Halee rupees.
This district does not send cotton anywhere.	Only a maund of cotton with seed is produced in a beegah.	Very little cotton is cultivated here; altogether about 30 or 40 beegahs; as much more could be added.	60 square yards is a beegah, a seer 96 Salim Shaeer rupees at Rampoor; 91 rupees at Maunassa; 20 seers a maund, 12 maunds a maunee; the currency is Salim Shaeer rupees, which is from 18 to 20 per cent. worse than Halee.
Very little produce brought in from Meywar for consumption.	6, 4, and 2 maunds per beegah is the produce.	1,000 beegahs under cultivation; more could be added.	60 yards square a beegah; 84 Salim Shaeer rupees a seer; 20 seers the Kutcha maund; 12 Kutcha or 6 Pucka maunds a maunee; Salim Shaeer rupees the currency.
Transported nowhere; very little, barely enough for internal consumption, is produced.	The average produce per beegah is 3 maunds.	200 beegahs under cultivation.	90 hands or cubits square is a beegah; 32 Salim Shaeer rupees a seer; 12 Kutcha or 6 Pucka maunds a maunee; Salim Shaeer rupees the currency.
Transported to Baroach or Tunkaria Bunder alone, at an expense of Rs. 1. 5. per maund.	The average produce per beegah is 3 maunds.	From 300 to 400 beegahs under cultivation; could be increased.	100 square cubits make a beegah; 74 Salim Shaeer rupees a seer; 20 seers a Kutcha maund; 12 Kutcha or 6 Pucka maunds or 40 seers, each a maunee; Salim Shaeer rupees the currency.
Transported from Jowrah to Baroach and Tunkaria Bunder, at an expense of Rs. 1. 5. per maund.	3 maunds the average produce.	1,000 beegahs under cultivation; could be increased.	100 cubits square make a beegah; 84 Salim Shaeer rupees a seer; 20 seers the Kutcha maund; 6 Pucka or 12 Kutcha maunds the maunee; Salim Shaeer rupees the currency.

(continued)

REPLIES to the Questions put by the Honourable Court of Directors—*continued.*

NAMES of DISTRICTS.	1. What was the price of cotton, freed from seed, in your district last year at this season, and what is it now?	2. At what rate do the ryots and cultivators sell cotton freed from seed if paid in advance, and what if not paid in advance?	3. What are the expenses of separating the seed from the cotton by (churkee) distaff, or any other machine used in this country?
Tal Munda Mal	Rs. 3. 4. per maund last year, 4½ rupees this year.	No advance given; about 20 rupees per maunee.	Churkee the only machine; expense, Rs. 2. 12. per maunee.
Rutlam	Rs. 3. 8. per maund is the present rate of "sutta."	16 rupees per maunee, with seed; no advance in this district.	Churkee the only machine; Rs. 2. 6. the expense per maunee for separating the seed.
Kanwar Dhar	2 rupees per Kutchu maund last year, 3 rupees this year.	11 or 12 rupees per maunee; on advance, a rupee less.	Churkee the only machine; Rs. 2. 2. the expense per maunee for separating the seed.
Chiculda	16 rupees per beegah last year, and 16 rupees this year.	17 rupees a maunee; on advance, a rupee less.	Churkee the only machine; Rs. 4. 4. the expense per maunee for separating the seed.
Kantaphore	16 rupees last year, 22 rupees this year.	17 rupees per maunee on advance, or 20 rupees without advance.	Churkee the only machine; 4 rupees per maunee expense for separating the seed.
Sehore	Rs. 5. 12. per maund last year, Rs. 6. 8. this year.	Rs. 6. 8. per maund without seed; with seed Rs. 2. 8. per maund; on advance, Rs. 2. 4. per maund.	Churkee is the only machine, and the expense in separating seed, 5 annas per maund.
Bairseeah	6 rupees per maund last year, Rs. 8. 8. this year.	8 rupees per maund without seed; with seed Rs. 2. 8. per maund; on advances, still less.	As preceding
Seronj	6 seers per rupee last year, 4½ seers per rupee this year.	12 seers per rupee with seed; 4½ seers without seed; on advances, the price is little less.	Churkee the only machine; R. 1. 8. per maunee is the expense for separating seed; sometimes the seed is taken in lieu of cash payment for wages.
Dhar	24 rupees per maunee last year, 36 rupees this year.	36 rupees per maunee; R. 1. 8. per maunee less if paid in advance.	Churkee is the only machine; expense of separating seed, 2 rupees per maund.

REPLIES to the Questions put by the Honourable Court of Directors—continued.

4.	5.	6.	7.
What are the expenses of transporting cotton from your district to Bombay, Surat, Tunkaria Bunder, Mirzapore or any other market, and to what port or market is it sent the most?	How much is the average produce of cotton in a beegah?	How much land in your district is under cotton cultivation, and to what extent could it be increased?	What is the measure, currency, the weight of seer, maund, and maunee in your district?
Sent to Kochrode or Rutlam, alone.	2 to 6 maunds per beegah.	1,200 beegahs are under cultivation, more could be added, but the profit is not equal to the labour and expense.	105 square cubits make a beegah; 82 Salim Shae rupees a seer; 20 seers to a Kutcha, and 40 to a Pucka maund; 6 Pucka or 12 Kutcha maunds is a maunee; Salim Shae rupees is the currency.
Sends cotton only to Baroach; a large bag of 16 maunds, or a small one of 9 maunds, costs 5 rupees and 3 rupees respectively for transport.	2, 4 or 6 Kutcha maunds is the produce of a beegah.	No proper estimate can be formed of the extent to which cotton is cultivated, but probably it may be 3,500 beegahs.	41 Salim Shae rupees to a seer; 40 seers to a maund; 12 maunds to a maunee; Salim Shae rupees the currency.
Sends to no other market but Burnuggur and Rutlam.	2, 4 or 6 Kutcha maunds is the produce of a beegah.	60 beegahs are now under cultivation; could be increased to 125 beegahs.	20 beegahs of 5 cubits each make a beegah; 80 Halee rupees a seer; 20 seers a Kutcha, and 40 seers to a Pucka maund; 12 Kutcha maunds to a maunee; 4 Pucka maunds to a bhoja; Halee rupees the currency.
Transported to Baroach and Baroda at an expense of 1½ rupee per maund, i.e. 1 rupee hire for carriage and 8 annas as duty.	A piece of land in which a maund of seed could be scattered, is called a beegah. Its growth depends on rain; no accurate estimate can be formed of the extent of cultivation.	No extent can be accurately estimated.	The beegah is not measured here; 80 rupees to a seer; 40 seers to a maund; 12 maunds to a maunee; Halee rupees the currency.
Transported to Mirzapore only, at a cost of 55 rupees for 5 bojas, i.e. 50 rupees hire for carriage, and 5 rupees duty.	1½ maund is the average produce of a beegah.	2,000 beegahs are now under cultivation, 1,000 more could be added.	The land in which a maunee of seed may be scattered is called a beegah here; 90 rupees to a seer; 40 seers to a maund; 12 maunds to a maunee; 4 maunds to a bhoja; Halee rupees the currency.
Transported to Mirzapore, a bullock or buffalo carrying 3 Puckah maunds; cost Rs. 7. 8., besides 1 rupee duty.	2 maunds 10 seers average.	Not extensively cultivated now, but could be increased.	1,000 cubits square make a beegah; 60 rupees a seer Bhopalee currency; 40 seers a maund; 8 maunds a maunee; a wooden cup used as a measure of wheat, called kora; 9 seers make a kora; 32 koras a maund; Bhopal rupee is the currency, 8 per cent. worse than Company's.
Transported to Mirzapore at an expense of 5 rupees per maund; i.e. 3 rupees duty, 2 rupees hire; it is also transported to Kalpee at the same rate.	2 maunds is the average	5,000 beegahs are now under cultivation; 2,500 beegahs more could be added.	105 cubits square make a beegah; 100 rupees a seer for cotton or opium, and 82 rupees a seer for corn; 40 seers to a maund; 4 maunds to a maunee; Bhopalee rupees the currency.
Sent nowhere, very little being produced.	3 to 4 maunds per beegah	Very little is sown	9 Kutcha bojahs make 6 pucka; 104 Seronj rupees to a seer; a maunee is 4 maunds; currency the Seronj rupee.
Nowhere transported, save to Rutlam and Indore; expense of transport cannot be accurately known.	The best produce is 6 maunds per beegah, 4 maunds the next, and 2 maunds the third.	From 1,000 to 1,200 beegahs are under cultivation in the whole district of Dhar; could be increased from 1 to 200 beegahs more.	20 biswahs make a beegah; 80 rupees to a seer; 40 seers to a Pucka maund; 6 maunds to a maunee; 4 maunds to a bhoja; Halee rupees is the currency.

REPLIES to the Questions put by the Honourable Court of Directors—continued.

NAMES	1.	2.	3.
of DISTRICTS.	What was the price of cotton freed from seed in your district last year, at this season, and what is it now?	At what rate do the ryots and cultivators sell cotton freed from seed, if paid in advance, and what if not paid in advance?	What are the expenses of separating the seed from the cotton by (churkee) distaff, or any other machine used in this country?
Nemawar - -	16 rupees per bojah last year, 20 rupees per bojah this year.	20 to 23½ rupees per maunee with seed; without seed the cotton is, 4 maunds (boja), 21 rupees; on advance the rate this year was 16 rupees a maunee, and without advance 20 rupees.	Churkee is the only machine; expense of separating seed, 4 rupees per maunee.
Milkheira - -	5 rupees per maund last year, and 7 rupees per ditto this year.	12 rupees per maunee with seed; seed never taken out from the cotton if an advance of 1 rupee per maunee less.	Churkee is the only machine; R. 1. 9. per maunee, the cost of separating the seed.
Kanur - - -	6 rupees per maund last year, 7½ rupees per ditto this year.	12 rupees, or Rs. 12. 8. per maunee; a rupee less in advance.	Churkee is the only machine; R. 1. 12. per maunee, the cost of separating the seed.
Piplone - - -	3½ rupees per maund last year, 3½ rupees this year.	12½ rupees per maunee; on advance 10 rupees per maunee.	Churkee the only machine; R. 1. 8. per maunee, cost of separating the seed.
Soosnair - - -	3½ rupees per maund last year, 4 rupees this year.	12 rupees per maunee; on advance 11 rupees.	Churkee the only machine; R. 1. 4. per maunee, cost of separating seed.
Soheit - - -	6½ rupees per maund last year, 4 rupees this year.	21 rupees per maund; no advance taken.	Churkee the only machine; 4 rupees per maunee, cost of separating the seed.
Rooneja - - -	3 rupees per maund last year, 3½ per ditto this year.	15 rupees per maunee; no advance taken.	Churkee the only machine; 2 rupees per maunee, the cost of separating the seed.
Demass - - -	26 rupees per maunee without seed last year, 31 or 32 ditto this year.	13 rupees per maunee with seed; on advance 10 rupees per maunee.	Churkee the only machine; R. 1. 12. per maunee, the cost of separating the seed.
Baroud - - -	3½ rupees per maunee last year, 3½ this year.	12 rupees per maunee, and sometimes 12½ rupees; on advance 10 rupees per maund.	Churkee the only machine; Rs. 1. 8. per maund, cost of separating the seed.
Mundisore - -	3 rupees per maund last year, Rs. 3. 12. this year.	16 rupees a maunee with seed; 15 rupees on advance.	Churkee the only machine; 2 rupees per maunee, cost of separating the seed.
Kachrode - -	Rs. 2. 12. per maund last year, Rs. 3. 12. this year.	21 rupees per maunee with seed; 18 rupees on advance.	Churkee the only machine; 2 rupees per maunee, cost of separating the seed.
Naharghur - -	3 rupees per maund last year, Rs. 3. 12. this year.	16 rupees per maunee with seed; 15 on advance.	Churkee the only machine; 2 rupees per maunee, cost of separating the seed.

REPLIES to the Questions put by the Honourable Court of Directors—continued.

4.	5.	6.	7.
What are the expenses of transporting cotton from your district to Bombay, Surat, Tunkaria Bunder, Mirzapore, or any other market, and to what port or market is it sent the most?	How much is the average produce of cotton in a beegah?	How much land in your district is under cotton cultivation, and to what extent could it be increased?	What is the measure, currency, the weight of seer, maund, and mannee in your district?
Transported to Mirzapore only; if on a camel the expense is 7 rupees per bojah (4 maunds), if on a cart 12 rupees per ditto.	2 maunds only is produced in a beegah, in which the cotton is 20 seers, and the seed $1\frac{1}{2}$ maunds.	2,000 beegahs; capable of increase.	A beegah is of 20 biswahs; revenue on a beegah, 1 rupee; 90 rupees to a seer; 40 rupees to a maund; 12 maunds to a mannee; 1 bojah is 4 maunds; Halee rupees, the currency.
No exports	1 maund 10 seers Pucka is the produce of a beegah of seedless cotton.	1,000 beegahs are under cultivation; no increase is possible.	100 square cubits make a beegah; 80 rupees to a seer; 25 seers to a maund; 8 maunds to a mannee; Boondee rupees, the currency.
Consumed; not exported	2 or $2\frac{1}{2}$ maunds is the produce per beegah.	500 beegahs under cultivation; the same number of beegahs could be added.	100 cubits square is a beegah; 80 rupees a seer; 17 seers a maund; 12 maunds a mannee; Boondee rupees, the currency.
Consumed; not exported	2 or 3 maunds per beegah the average produce.	300 beegahs are under cultivation; 10 beegahs more could be added.	100 cubits square make a beegah; 80 rupees to a seer; 16 seers to a maund; 12 maunds to a mannee; Boondee currency.
Consumed; not exported	2 maunds the most, 1 maund $17\frac{1}{2}$ seers the least, produce of a beegah.	1,000 beegahs are under cultivation; 150 more could be added.	90 cubits square to a beegah; 80 rupees to a seer; 25 seers to a maund; 8 maunds to a mannee; Boondee currency.
Consumed; not exported	1 maund, or half a maund of 42 seers, the produce of a beegah.	100 or 125 beegahs are under cultivation; no increase could be made.	100 cubits square to a beegah; 80 Halee rupees to a seer; 42 seers to a maund; 8 maunds to a mannee; Boondee currency.
Consumed; not exported	4 Kutchu maunds is the produce of a beegah; 3 maunds the least.	500 beegahs are under cultivation; 300 beegahs more could be added.	90 cubits square to a beegah; 84 rupees to a seer; 16 seers to a maund; 12 maunds to a mannee; Salim Shae rupees, the currency.
Consumed; not exported	4 maunds of 17 seers each, of the best kind, and either 1 maund, or say 2 the least, produce of a beegah.	275 beegahs are under cultivation; a few beegahs more could be added.	20 biswahs to a beegah; 80 rupees to a seer; $17\frac{1}{2}$ seers to a kutchu; 12 maunds to a mannee; 4 Puckah maunds to a bojah; 40 seers a Pucka maund; currency Halee rupees.
Consumed; no export	6 Kutchu maunds could be procured in a beegah, the least, 4 maunds.	500 beegahs under cultivation, 300 more could be added.	100 cubits square to a beegah; 80 rupees to a seer; 16 seers to a maund; 12 maunds to a mannee; Boondee currency.
Transported to Baroach; Rs. 2. 2. the duty.	2 to 6 maunds produced in a beegah.	2,000 beegahs are under cultivation.	100 cubits square to a beegah; 92 rupees to a seer; 15 seers to a maund; 12 maunds to a mannee; the currency, Salim Shae rupees.
Transported to Baroach; R. 1. 2. the cost per maund, but when sent to Tunkaria Bunder, R. 1. 9.	6 maunds the produce of a beegah.	2,000 beegahs are under cultivation, 500 more could be added.	100 cubits square to a beegah; 82 rupees to a seer; 20 seers to a maund; 12 maunds to a mannee; currency, Salim Shae rupees.
Is sent to Mundisore, at a cost of 12 annas per mannee.	3 to 6 maunds the produce of a beegah.	400 beegahs are now under cultivation, 100 more could be added.	100 cubits square to a beegah; 92 rupees to a seer; 16 seers to a maund; 12 maunds to a mannee; currency, Salim Shae rupees.

REPLIES to the Questions put by the Honourable Court of Directors—continued.

NAMES of DISTRICTS.	1. What was the price of cotton freed from seed in your district last year, at this season, and what is it now?	2. At what rate do the ryots and cultivators sell cotton freed from seed if paid in advance, and what if not paid in advance?	3. What are the expenses of separating the seed from the cotton by (churkee) distaff, or any other machine used in this country?
Sookhera - -	3 rupees per maund last year, Rs. 3. 12. this year.	16 rupees per maunee with seed; 15 on advance.	Churkee the only machine; 2 rupees per maunee, cost of separating the seed.
Ouril - -	2 rupees per maunee last year, 2½ this year.	12 rupees per maunee with seed; 10 on advance.	Churkee the only machine; R. 1. 8. per maunee, cost of separating the seed.
Bhussowda -	4 rupees per maunee last year, Rs. 4. 8. this year.	Rs. 15. 12. per maunee with seed; no advance made.	Churkee the only machine; 2 rupees per maunee, cost of separating the seed.
Diethan - -	20 rupees per bojah of seedless cotton (of 4 maunds) last year, and 18 rupees ditto, this year.	7½ rupees per maunee with seed; no advance made.	Churkee the only machine; 3 rupees per maunee, cost of separating the seed.
Sagore - -	20 rupees per maunee last year, 24 rupees this year.	12 rupees per maunee with seed; no advance made.	Churkee the only machine; 2 rupees per maunee, cost of separating the seed.
Burnuggur -	17 rupees or 18 rupees per bojah last year, 26 or 27 this year.	10 to 14 rupees per maunee, always with seed; 2 rupees per maunee less on advance.	Churkee the only machine; expense of cleaning, Rs. 2. 5. per maund.
Sonekutch -	5 rupees per maunee last year, 8 rupees this year.	12 rupees per maunee with seed; 10 rupees per maunee.	Churkee the only machine; expense of cleaning, R. 1. 12. per maunee.
Bhorassa - -	18 to 20 rupees per bojah last year, 28 to 30 this year, of seedless cotton.	12 rupees per maunee without seed; on advance, 10 rupees, ditto.	Churkee the only machine; expense of cleaning, 2 rupees per maunee.
Newree - -	16 rupees per beegah last year, 22 rupees ditto this year.	12 rupees per maunee with seed; 8 rupees per ditto on advance.	Churkee the only machine; expense of cleaning, 2 rupees per maunee.
Shujawalpore -	40 rupees per maunee last year, the same this year.	14 rupees per maunee, the bazar rate; 8 rupees on advance.	Churkee the only machine; expense of cleaning, 2 rupees per maunee.
Tonk - -	30 rupces per maunee last year, 36 rupees this year.	13 rupees per maunee with seed; 10 rupees per ditto on advance.	Churkee the only machine; expense of cleaning, 2 rupees per maunee.
Sectamhow -	Rs. 3. 12. per maund last year, 4 rupees this year.	15 rupees per maunee with seed on advance; without advance, 17 rupees.	Churkee the only machine; expense of cleaning, Rs. 2. 12. per maunee.
Augur - -	8 seers per rupee last year, 5 seers per rupee this year.	12 rupees per maunee with seed; 10 rupees ditto on advance.	Churkee the only machine; expense of cleaning, R. 1. 8. per maunee.

(True copies.)

(signed) P. Melvill,

Under Secretary to the Government of India.

REPLIES to the Questions put by the Honourable Court of Directors—*continued*.

4.	5.	6.	7.
What are the expenses of transporting cotton from your district to Bombay, Surat, Tunkaria Bunder, Mirzapore, or any other market, and to what port or market is it sent the most?	How much is the average produce of cotton in a beegah?	How much land in your district is under cotton cultivation, and to what extent could it be increased.	What is the measure, currency, the weight of seer, maund, and maunee in your district?
Consumed; no export	3 to 6 maunds the produce of a beegah.	100 beegahs under cultivation; as much more can be added.	100 cubits square to a beegah; 80 rupees to a seer; 20 seers to a maund; 12 maunds to a maunee; currency, Salim Shae rupees.
Is sent to Kochrode, at a cost of 1 rupee per maunee.	3 to 4 maunds the produce of a beegah.	600 beegahs are under cultivation; 500 more could be added.	100 cubits square to a beegah; 80 rupees to a seer; 18 seers to a maund; 12 maunds to a maunee; currency, Halee rupees.
Consumed; no export	1½ to 2 maunds the produce of a beegah.	900 beegahs are under cultivation; 500 could be added.	100 cubits square to a beegah; 82 rupees to a seer; 20 seers to a maund; 12 maunds to a maunee; currency, Halee rupees.
Is sent to Burrunnuggur, at a cost of 5 rupees per cart, carrying 3 rupees per maunee.	1½ to 6 maunds the produce of a beegah.	150 beegahs are under cultivation; 25 could be added.	20 biswahs to a beegah; 80 rupees to a seer; 40 seers to a maund; 6 Pucka maunds a maunee; 4 maunds to a bojah; currency, Halee rupees.
Consumed; no export	5 maunds the average produce.	Not known	100 cubits square to a beegah; 80 rupees to a seer; 20 seers to a Kutchma maund; 12 maunds to a maunee; currency, Halee rupees.
Consumed; little or no export	2, 4, to 6 maunds the produce.	Not known	5 cubits square to a biswah; 20 biswahs to a beegah; 80 rupees to a seer; 20 seers to a Kutchma maund; 12 maunds to a maunee; 4 maunds to a bojah; currency, Halee rupees.
Sent to Clojein and Burrunnuggur.	4 Kutchma maunds the average produce.	3,000 beegahs under cultivation; as many more could be added.	5 cubits square to a biswah; 20 biswahs to a beegah; 80 rupees to a seer; 18 seers to a Kutchma maund; 12 maunds to a maunee; currency, Halee rupees.
Sent to Oojein and Indore, at a cost of R. 1. 8. per bojah.	3 to 4 maunds per beegah.	600 beegahs; as many more could be added.	5 cubits square to a biswah; 20 biswahs to a beegah; 82 rupees to a seer; 18 seers to a Kutchma maund; 12 maunds to a maunee; currency, Halee rupees.
Sent to Oojein and Indore, at a cost of R. 1. 8. per bojah.	2 to 6 maunds per beegah.	750 beegahs; 600 more could be added.	All as the preceding.
Consumed; no export	2 to 4 maunds per beegah.	Not known	5 cubits square to a biswah; 20 biswahs to a beegah; 60 rupees to a seer; 28 seers to a maund; 8 maunds to a maunee; 6 maunds to a bojah; currency, Halee rupees.
Consumed; no export	3 to 6 maunds per beegah.	Not known	All as preceding, only that 18 seers make a maund.
Consumed; no export	3 maunds per beegah.	3,000 beegahs under cultivation; 3,000 more could be added.	160 cubits square to a beegah; 40 rupees to a seer; 40 seers to a maund; 12 maunds to a maunee; currency, Salim Shae rupees.
Sent only to Rutlam, at a cost of 4 rupees per bojah of 4 maunds.	3 maunds per beegah.	Not known	100 cubits square to a beegah; 82 rupees to a seer; 16 seers to a maund; 12 maunds to a maunee, Boondee currency.

(signed) R. N. C. Hamilton,
Resident.

I.
Bengal and
North Western
Provinces.

Home Department—Revenue—No: 16 of 1848.

To the Honourable the Court of Directors of the East India Company.

Hon. Sirs,

IN continuation of our despatch, No. 5 of 1848, dated the 25th March, we have the honour to transmit the accompanying copies of reports from the Resident at Hyderabad and the Commissioner of the Saugor and Nerbudda Territories, having reference to your inquiry as to the extent to which India might supply cotton in the event of there being an increased demand for it in England or elsewhere.

We have, &c.

(signed) *Dalhousie.*
F. Millett.
J. H. Littler.

Fort William, 12 August 1848.

(No. 3966 of 1848).

From *C. Allen*, Esq., Officiating Secretary to Government, North Western Provinces, to *G. A. Bushby*, Esq., Secretary to Government of India, Home Department, Fort William.

Sir,

IN continuation of Mr. Secretary Thornton's letter, No. 896, to your address, dated the 6th March last, regarding the extent to which India might supply cotton, in the event of an increased demand for it either in England or elsewhere, I am directed by the Honourable the Lieutenant-Governor to transmit to you, for the purpose of being laid before the Right Honourable the Governor-General of India in Council, the accompanying copy of a letter, No. 82, from the Commissioner of the Saugor and Nerbudda Territories, dated the 19th instant, with its enclosures on the subject.

I have, &c.

(signed) *C. Allen*,
Officiating Secretary to Government,
North Western Provinces.

Agra, 28 July 1848.

(No. 1, in No. 3966 of 1848).—(No. 82 of 1848.)

From Lieutenant-Colonel *W. H. Sleeman*, Commissioner, to *C. Allen*, Esq., Officiating Secretary to Government, North Western Provinces, Agra.

Sir,

I HAVE the honour, in reply to Mr. Thornton's letter, No. 528, of the 12th of February last, to submit the reports of officers in charge of districts, as per margin.* These are the only replies that I have as yet received. As soon as replies are received from others they shall be submitted. Captain Ellis was requested to furnish the information required from the native chiefs in Bundelcund, and will do so, but he finds some difficulty in making these chiefs understand what it is that he requires.

2. There is little difference in the quality of the cotton in the different districts under my charge, and the difference of price at the different places arises almost altogether from their different distances from the markets on the Ganges and Jumna (Calpee and Mirzapore), and the difference of duties to which their cotton is liable in passing to them.

3. The

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- * 1. From Deputy Commissioner, Saugor, of 19 June 1847, No. 183.
2. From - - ditto - - Narsingpore, of 20 April, No. 3.
3. From - - ditto - - Baitool, of 22 March, No. 30.
4. From - - ditto - - Jubbulpore, of 13 June, No. 370.
5. From Superintendent - - Jhaloun, of 18 May, No. 253.
6. From - ditto - in charge of Gwalior Ceded Districts, of 15 May, No. 71.

Revenue Depart-
ment.

Revenue.

3. The average produce is, too, about the same in all, and in all the districts a vast deal more of land would be appropriated to the growth of cotton were the price of that article to rise, and keep at a higher rate for a few years. No other article of produce is liable to such fluctuations of price, and casual rises and falls do not much influence the quantity of land under cotton cultivation.

4. The only way to effect improvements in the growth of cotton is, I think, to invite into districts good practical cotton farmers, who will find out the best mode of improving the growth and quality, and show the people that they gain by following it. This might be done at no great cost by giving land rent-free for certain periods to proper persons in the best cotton districts, and advancing money for stock on moderate terms. The American cotton experiments were tried all in an unfavourable time, and their failure should be no discouragement.

5. Native cotton merchants will not make such experiments, and the land-holders and cultivators cannot afford to make them; but it is a sad mistake to suppose that they would not gladly adopt improved methods if the advantages were manifest to them.

6. By experiments tried at my suggestion in the Chundeyree District by Captain Blake, it is found that the Burareea cotton used in the fine cloths made at Chundeyree deteriorates rapidly from year to year when removed to that district from Nimaur, where it is produced in perfection. The causes I have not yet discovered. I suppose it is the finest cotton known, and the dearest. It is worthy of remark that the manufacturer cannot use this cotton unless it is brought from Nimaur to Chundeyree, a distance of some hundred miles, before the seed is removed from it. It requires to be used immediately that the seed is removed, or the thread is not fit for the finest quality of cloth.

I have, &c.

Jhansee, Commissioner's Office,
19 July 1848.

(signed) W. H. Sleeman,
Commissioner.

(True copy).

(signed) C. Allen,
Officiating Secretary to Government,
North Western Provinces.

(No. 2, in No. 3966 of 1848.)—(No. 183 of 1848.)

From Captain G. W. Hamilton, Deputy Commissioner, First Class, Saugor, to Lieutenant-Colonel W. H. Sleeman, Agent Governor-General, Jhansie.

No. 1, in No. 82 of
1848.

Sir,

I HAVE the honour to forward the information regarding cotton required by your circular, No. 61, dated the 14th of February last.

Saugor, Office of Deputy Commissioner,
19 June 1848.

I have, &c.
(signed) G. W. Hamilton,
Deputy Commissioner, First Class.

QUERIES.

1. What is the price of cotton, freed from seed, at the principal mart or marts in your district?

REPLIES with reference to the Districts of Saugor and Dumoh, Saugor and Nerbudda Territories.

1. The average price of cleaned cotton at the principal marts in this district is $6\frac{1}{2}$ seers per Company's rupee.

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?

2. The ryot disposes of his cotton to the trader at about seven seers of cleaned cotton per Company's rupee, and $18\frac{1}{2}$ seers of uncleaned cotton per Company's rupee. These are the usual prices when no advances are made. When advances are given, the rate is of course somewhat lower.

3. What is the expense of cleaning cotton by the churka or foot-roller, or by any other method which may be in use?

3. The only instrument in use for cleaning cotton is the common hand churkha, and about 72 seers can be cleaned from seed for one Company's rupee.

I.
Bengal and
North Western
Provinces.

4. What are the expenses of conveying cotton to the nearest port for shipment?

4. The expense of carrying one tangur of 140 seers from Saugor to Mirzapore is as follows:

	Co.'s Rs.
Carriage, including insurance - - - - -	3 6 -
Duty paid to Native States - - - - -	1 8 -
Ditto, to British Custom-house - - - - -	1 12 -
Package - - - - -	12 -
Other expenses - - - - -	2 -
	Co.'s Rs. 7 8 -

or Co.'s Rs. 2. 8. per maund. I am unable to state the cost of the conveyance from Mirzapore to Calcutta.

5. What is the average produce of cotton per beegah or acre?

5. The average produce per acre is estimated at 32 seers.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried in the event of an increased demand?

6. The total quantity of land under cultivation with cotton is estimated at 50,000 acres, and the produce at 40,000 maunds. This estimate must be near the truth, for in the year ending the 30th of April 1846, above 40,000 maunds of cotton, the produce of the district, paid export duty at the custom-house of Saugor.

About 30,000 acres of uncultivated land are capable of producing cotton, and about 20,000 acres now under cultivation, with other produce, are applicable to the same purpose. Under the present imperfect system of cultivation, the produce would amount to 45,000 maunds; but were the cultivation improved, I have no doubt that the produce would be increased one-half, and it would then reach nearly 1,50,000 maunds. The chief obstacles to an increase are the high charge for transport to Mirzapore, and the heavy duties levied by the native States and the British Government.

The acre mentioned above is the British statute acre. The maund and seer are those established by Government, and the rupee is the Company's rupee.

(signed) *G. W. Hamilton,*
Saugor, Office of Deputy Commissioner, Deputy Commissioner, First Class
19 June 1848.

(True copy.)

(signed) *H. Power,* Deputy Commissioner, Third Class.

(True copy.)

(signed) *C. Allen,* Officiating Secretary to Government,
North Western Provinces.

(No. 3, in No. 3966 of 1848.)—(No. 3.)

No. 2, in No. 82
of 1848.

From *Edward King Elliot*, Esq., Deputy Commissioner, First Class, Nursingpore, to
Colonel *W. H. Sleeman*, Governor-General's Agent, Jhansee.

Sir,

I HAVE the honour to acknowledge the receipt of your circular, No. 61, under date the 14th of February last, with its enclosures;* and with reference to the information therein called for, I beg to state as follows:

2. The most simple mode of affording the desired information appears to me to be by placing categorically the questions proposed by the Honourable Court, recording the detailed reply to each, thus:

Question 1. What is the price of cotton, freed from seed, at the principal mart or marts in your district?

Answer 1. There are four principal marts for cotton in the district of Nursingpore; viz. Nursingpore Khas, Chundwara, Tendu Khera, and Koureea. This last-named place is
on

* Copy of a letter, No. 247, of 28th January 1848, from the Secretary to the Government of India to Colonel *W. H. Sleeman*.

Copy of a Despatch, No. 14 of 1847, dated 11 November 1847, from the Honourable the Court of Directors to the Governor-General of India in Council.

on the high road to Hoshungabad, and is close to Gunmura. The price of cotton freed from seed at these places is as follows; viz.

Nursingpore Khas.	Co.'s Rs. a. p.	} For the maund of 40 seers, each seer being 80 sicca weight.
Chundwara - - - - -	5 4 -	
Tendoo Khera - - - - -	4 6 -	
Koureea - - - - -	5 - -	

I.
Bengal and
North Western
Provinces.

2. At what rate does the ryot sell his cotton, cleaned or uncleaned, and with or without advance?

2. From inquiries made I find that the ryot sells his cotton at the following rates per maund of 40 seers of 80 sicca weight; viz.:

	Cleaned.	Uncleaned.	With Advance.	Without Advance.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Nursingpore Khas - - - - -	5 - -	- - -	4 8 -	5 - -
Chundwara - - - - -	5 4 -	1 11 -	- - -	- - -
Tendoo Khera - - - - -	4 6 -	- - -	3 8 -	4 6 -
Koureea - - - - -	5 - -	- - -	4 - -	- - -

3. What is the expense of cleaning cotton by the churkha or foot-roller, or by any other mode which may be in use?

3. In the district of Nursingpore cotton is usually cleaned by means of the common churkha, and the expense per maund is as follows:

	Rs. a. p.	} Per maund of 40 seers, of 80 sicca weight each seer.
Nursingpore Khas - - - - -	8 9 -	
Chundwara - - - - -	9 - -	
Tendoo Khera - - - - -	9 3 -	
Koureea - - - - -	14 - -	

4. What are the expenses of conveying cotton to the nearest port for shipment?

4. From this district the cotton is sent to Mirzapore, on the Ganges, a distance of 300 miles from the sudder station of Kundalee. The cost of transit to Mirzapore is as follows:

	Rs. a. p.	} Per maund of 40 seers, of 80 sicca weight each seer.
Nursingpore Khas - - - - -	2 - -	
Chundwara - - - - -	1 11 6	
Tendoo Khera - - - - -	1 14 -	
Koureea - - - - -	2 - -	

N. B.—From Mirzapore the cotton is sent by boat to Calcutta, but I am unable to say exactly what may be the expense; the distance by water is calculated at 730 miles.

5. What is the average produce of cotton per beegah or acre?

5. I am told that the average produce of cotton per beegah is as follows in this valley:

Pergunnah Nursingpore - - - - -	30 seers	} <i>N. B.</i> —100 beegahs may be looked upon as 75 English acres.
„ Sreenuggur - - - - -	50 „	
„ Chaumputta - - - - -	60 „	
„ Shahpore - - - - -	30 „	

Note.—Chendwuru is in the Sreenuggur pergunnah; Tendoo Khera is in the Chaumputta pergunnah, and Kowreeu is in the Shahpore pergunnah.

6. What is the quantity of land under cultivation with cotton, and to what extent is it possible that the cultivation could be carried in the event of an increased demand?

6. From inquiries made, it would appear that the quantity of land at present under cotton cultivation in this district is as follows:

	Beegahs.
Nursingpore pergunnah - - - - -	5,000
Sreenuggur - ditto - - - - -	8,800
Chaumputta - ditto - - - - -	3,538
Shahpore - ditto - - - - -	20,000
Beegahs -	37,338

I.
Bengal and
North Western
Provinces.

It would be possible, I am told, to increase this cultivation very nearly 70 per cent., as will be shown in the annexed Table.

	Quantity supposed to be at present under Cultivation.	Additional Quantity that could, it is thought, be brought under Cultivation.	TOTAL.
	<i>Beegahs.</i>	<i>Beegahs.</i>	<i>Beegahs.</i>
Nursingpore - - - - -	5,000	6,250	11,250
Sreenuggur - - - - -	8,800	3,000	11,800
Chaumputta - - - - -	3,538	-	3,538
Shahpoor - - - - -	20,000	15,000	35,000
TOTAL - - -	37,338	24,250	61,588

N. B.—In the replies to the foregoing questions the maunds to be considered as 40 seers each seer being of 80 sicca weight. The rupee is the Company's rupee and its component parts; 100 beegahs in this district are equivalent to 75 English acres.

Nursingpore,
Deputy Commissioner's Office,
20 April 1848.

I have, &c.
(signed) *E. K. Elliot*,
Deputy Commissioner, 1st Class.

(True copy).

(signed) *H. Power*, Deputy Commissioner, 3d Class.

(True copy).

(signed) *C. Allen*, Officiating Secretary to Government, N. W. P.

No. 3, in No. 82
of 1848.

(No. 4 in No. 3966 of 1848.)—(No. 30 of 1848).

From Lieutenant *A. H. Ternan*, Deputy Commissioner, Second Class, Baitool, to Colonel *W. H. Sleeman*, Commissioner Saugor and Nerbudda Territories, Jhansee.

Sir,

Revenue.

I HAVE the honour to state in reply to your circular, No. 61, dated 14 February 1848, regarding the cultivation of cotton, that the latter is not grown in any part of this district, the inhabitants being supplied entirely from the neighbouring Berar country.

Baitool, Office Deputy Commissioner,
Second Class, 22 March 1848.

I have, &c.
(signed) *A. H. Ternan*,
Deputy Commissioner, 2d Class.

(True copy).

(signed) *H. Power*, Deputy Commissioner, 3d Class.

(True copy).

(signed) *C. Allen*, Officiating Secretary to Government, N. W. P.

No. 4, in No. 82
of 1848.

(No. 5 in No. 3966 of 1848.)—(No. 370 of 1848).

From Major *J. Macadam*, Deputy Commissioner, First Class, to Lieutenant-Colonel *W. H. Sleeman*, Commissioner in the Saugor and Nerbudda Territories, Jhansee.

Sir,

Revenue.

I HAVE the honour to acknowledge the receipt of your letter, No. 61 of the 14th February last, with its enclosures, from the Secretary to the Government of India, requesting information regarding the cultivation of cotton, and in reply I beg to give the following answers to the six queries:

1. Cotton freed from seed sells at the principal marts of this district at six Nagpooree rupees per maund, which will be equivalent to *Co.'s Rs. 5. 4.*

2. If the ryot has obtained advances, he sells his cotton for one rupee per maund less than the market price, besides paying interest at the rate of 12 per cent. for the amount advanced. This is for cotton that has been cleaned; cotton uncleaned is rarely sold.

3. A small hand churkha is used for cleaning cotton, and the expense incurred is 12 annas per maund.

4. The average expense of sending cotton from this to Mirzapore is *Rs. 1. 12.* per maund.
5. Each

5. Each beegah of land in a good season produces 1 maund and 20 seers of cotton; but if the season has been unfavourable, the average produce will be 1 maund.

6. The average quantity of land cultivated by cotton is 33,652 beegahs, and if there was a greater demand, double this would, no doubt, be cultivated.

The maund here mentioned is of 40 seers of 80 Company's rupees each.

I have, &c
(signed) *J. Macadam*,
Deputy Commissioner, 1st Class.

Jubulpore, Deputy Commissioner's Office,
15 June 1848.

(True copy.)

(signed) *H. Power*, Deputy Commissioner, 3d Class.

(True copy.)

(signed) *C. Allen*, Officiating Secretary to Government, N. W. P.

I.
Bengal and
North Western
Provinces.

(No. 6 in No. 3966 of 1848).—(No. 253 of 1848).

From Captain *D. Ross*, Superintendent of Jalown, to Lieut.-Colonel *W. H. Sleeman*, Agent
Governor-General in Bundelkund, &c. &c. &c., Jhansee.

No. 5, in No. 82
of 1848.

Sir,

I HAVE the honour to acknowledge the receipt of your letter of the 14th February last, No. 30, with enclosures as per margin,* and to submit replies to the queries circulated by order of the Honourable Court of Directors, in regard to the cultivation of cotton in the North Western Provinces, so far as relates to the Jalown district.

There are nine pergunnahs† in Jalown, including the two called Jhansee pergunnahs of Duboi and Gurotah, and the confiscated jahgeer of Chergong, in all of which slight differences occur in regard to the price of cotton, the cost of cultivation, and the produce per beegah; the weights also vary in some degree, and there are three different kinds of rupees current, of local coinage. I prepared a table exhibiting the details in each pergunnah, and from it struck an average for the whole district, reducing the weights to the Company's standard of 80 tolahs to a seer, and converting the local rupees into Company's currency, at the intrinsic rate of exchange, as ascertained at the Agra assay office. I have replied to the queries seriatim, in the order they are put:—

Question 1. What is the price of cotton freed from seed at the principal mart or marts in your district?

Answer. The average price of cotton freed from seed is Co.'s Rs. 5. 13. per maund. The town of Jalown was formerly a considerable mart for cotton, but has fallen into insignificance, and for many years past the bulk of the cotton grown in the district is purchased by agents at Kooneh (in zillah Humeerpore), which is the largest cotton mart in this part of Bundelkund; it is bounded on all sides by the pergunnahs of Jalown, and is about 40 miles distant from Calpee, whence the cotton is conveyed by the river route to the Presidency. From pergunnah Kunnur to the northward, and Jalown Khas, a good deal of cotton is sent direct to Calpee, the distance being less than *viâ* Kooneh.

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?

The rate at which the ryot sells his cotton, taking the average of the district, is—

For cleaned Cotton				For uncleaned Cotton											
With Advances.		Without Advances.		With Advances.		Without Advances.									
Per Maund.				Per Maund.											
Co.'s	Rs.	a.	p.	Co.'s	Rs.	a.	p.	Co.'s	Rs.	a.	p.	Co.'s	Rs.	a.	p.
5	4	—		5	13	—		1	10	—		1	14	—	

3. What

* Copy of letter from Secretary to Government of India, No. 247, dated 28 January 1848, with extract from the proceedings of the Governor-general in Council in the Home Department, dated 15 January 1848, No. 20.

† Jalown Khas, Kunnur, Mahumdubad, Etoura Ruepoor, Mote, Muhola, Dubai, Gurotah, Chergong.

I.
Bengal and
North Western
Provinces.

3. What is the expense of cleaning cotton by the churkha, or foot-roller, or by any other method which may be in use?

The churkha is the only machine used in cleaning cotton, and the expense per maund is 12 annas, the maund being 40 seers of 80 tolahs each.

4. What are the expenses of conveying cotton to the nearest port for shipment?

The average cost of carrying the cotton to Calpee, on the Jumna, is 3 annas and 7 pie per maund.

5. What is the average produce of cotton per beegah or acre?

The average produce per beegah is 27 seers, the seer being 80 tolahs, and the beegahs consisting of 20 guntahs, each $7\frac{1}{2}$ feet, that is, 50 square yards.

6. What is the quantity of land under cultivation for cotton, and to what extent is it probable that the cultivation could be carried, in the event of an increased demand?

The land at present under cotton cultivation is 1,13,201 beegahs, and, in the event of an increased demand, and encouragement given, it might be extended to 2,59,080 beegahs; the principal increase would be in Kunner and Mote, the lands of these pergunnahs being particularly favourable for cotton.

I have, &c.

Jalown Superintendency, Orai, (signed) D. Ross, Superintendent.
18 May 1848.

(True copy.)

(signed) H. Power, Deputy Commissioner, 3d Class.

(True copy.)

(signed) C. Allen, Officiating Secretary to Government, N. W. P.

No. 6, in No. 82 of 1848. (No. 7 in No. 3966 of 1848.)—(No. 71 of 1848.)

From Captain D. Ross, Superintendent of Jalown, in charge (in charge Gwalior ceded district), to Lieutenant-Colonel W. H. Sleeman, Agent Governor-General for Scindiah's Dominions, Jhansi.

Sir,

I HAVE the honour to acknowledge the receipt of your letter, No. 30, dated the 14th February last, with enclosures as per margin,* and to submit replies to the queries circulated by order of the Honourable Court of Directors, in reference to the cultivation of cotton in the North Western Provinces, so far as the Gwalior ceded districts of Kuchmahagar and Bhundere under my charge are concerned. There are three† pergunnahs in these districts, the tahseeldars of which aided me in obtaining the details required from the Karoongoe records chiefly, and the Putwurree papers; the result can only be considered a fair approximation to the truth; and in such inquiries it is seldom practicable to obtain more.

I have placed the replies in juxtaposition with the queries.

Question 1. What is the price of cotton freed from seed, at the principal mart or marts in your district?

Answer. The average price of cotton, freed from seed, is Co.'s Rs. 6. 11. 5½. per maund. There is no particular mart for cotton in the district; but all the surplus produce not required for local consumption is purchased by agents at Koonch, a large cotton mart, in the Humeerpore collectorate, about 30 miles distant from Bhundere, and the same distance from Madhogurh.

2. At what price does the ryot sell his cotton cleaned or uncleaned, and with or without advance?

The rate at which the ryot sells his cotton, taking the average of the three pergunnahs is:—

For cleaned Cotton				For uncleaned Cotton			
With Advances.		Without Advances.		With Advances.		Without Advances.	
Per Maund				Per Maund			
<i>Rs.</i>	<i>a.</i>	<i>p.</i>		<i>Rs.</i>	<i>a.</i>	<i>p.</i>	
5	15	—		6	7	6	

For cleaned Cotton				For uncleaned Cotton			
With Advances.		Without Advances.		With Advances.		Without Advances.	
Per Maund				Per Maund			
<i>Rs.</i>	<i>a.</i>	<i>p.</i>		<i>Rs.</i>	<i>a.</i>	<i>p.</i>	
1	12	1		1	13	2½	

3. What

* Copy of Letter from Secretary to Government of India, No. 247, dated 28 January 1848, with Extract from the Proceedings of the Governor-general in Council in the Home Department, of 15 January 1848, No. 20.

† Bhundere, Modhogurh, Indoorkee.

I.
Bengal and
North Western
Provinces.

TRANSLATIONS of the Answers given by the Minister to the Queries regarding the
Culture and Trade of Cotton in the Nizam's Country.

Answer 1. There are two principal marts in the Berar zillah, Khangaum and Oomrawuttee, to the former is attached the petty marts of Akoat, Argaum, Julgaum, Mulkaipoor, Jamode, &c., and to the latter those of Karunjah, Tullagaum, Maholee, Naadgaupett, &c. The dealers of Khangaum purchase cotton freed from seed at prices averaging in cheap seasons from 15 to 20 Hyderabad rupees per pullah of 120 Indian seers, or 240 lbs., and in dear seasons from 25 to 35 Hyderabad rupees per pullah; these prices are, however, determined and vary according to the produce of cotton in several countries, and the state of the markets at Bombay and Mirzapore, to the former of which the large exportation, and to the latter the smaller is made. Besides the Berar zillah, there are other small marts in Busmut and Mudnoor, &c., and a large mart at Gangaratty in the Raichore talooka, where also the dealers purchase cotton.

2. The ryots do not sell cleaned cotton, but only uncleaned, with and without advances; of the uncleaned cotton mixed with seed there are three different sorts, the value of which in cheap seasons is from 11 to 15 Hyderabad rupees per pullah, a pullah of which when cleaned and freed from seed, leaves of cleaned cotton from one-half to three-fourths pullah. The dealers who made advances purchase the cotton from 8 to 12 annas per pullah cheaper than the above rates.

3. In Berar zillah, the cotton is cleaned by country churkhas, and the expense of cleaning one pullah mixed with seed is from 14 Hyderabad annas to Rs. 1. 2. per pullah, the seed itself being also delivered to the dealer, but no charge is made when the cleaners are allowed to retain the seed, because the value of the seed is estimated to be equal to the above rates for cleaning.

4. From the principal marts of Khangaum and Oomrawuttee and their subordinate marts, the cotton is conveyed to the bunders of Panwell and Carsellis in the Bombay Presidency, at the hire of four to five Hyderabad rupees per pullah from the former, and at six to seven Hyderabad rupees per pullah from the latter, and their subordinate marts. In addition to which a charge of 12 annas to one Hyderabad rupee per pullah is incurred in packing the cotton, independent of the transit duties (Rahdaree), within his Highness's territories, charged at several stations of the circar, and other stations belonging to jaghiredars, and the right (wiswa) of moocudums, and the watcher at night, &c. which all amount from one to one and a half Hyderabad rupee per pullah, exclusive of the custom charged in the Bombay Presidency.

5. For a very long time past, no system has obtained of measuring and surveying the land in his Highness's territories, and the fields for the several products are not separate, the cultivators growing cotton and grain in their respective fields together and indiscriminately, as their inclination or interest dictates, consequently no correct information can be given on the subject.

6. As it cannot be correctly ascertained at present what quantity of land is under cotton cultivation, requisitions will be made to the talooqdars on this subject.

(True translation.)

(signed) J. Low, Officiating Resident.

(No. 97 of 1848.)

From Captain *M. Taylor*, on Special Duty, Shorapoor, to Colonel *J. Low*, C. B., Officiating Resident, Hyderabad, dated the 23d June 1848.

Sir,

In reply to a letter from Major-general Fraser of the 16th February last, No. 166, and its enclosure, copy of a despatch, No. 14, from the Honourable the Court of Directors in the Revenue Department, I have the honour to submit to you the following particulars in regard to the cotton cultivation and trade of the district of Shorapoor.

Question 1 of the Court's despatch. What is the price of cotton freed from seed at the principal mart or marts in your district?

2. The price of cotton freed from seed in these districts this season is two Hyderabad rupees per maund, of 48 cutcha seers, or 16 rupees per cutcha candy of eight maunds. I have never known it to rise above three rupees per maund, nor to fall below one to one and a quarter. Taking the cutcha seer at half a pound, which is nearly its weight, the pukka seer being 80 rupees weight, it follows that the price per Bombay candy of seven cwts. or 784 lbs. would be at the present rate here, 65 Hyderabad rupees, or at the current exchange *Co.'s Rs.* 52. 14., or nearly so, the price of cotton of similar quality, viz., Oomrawuttee and Bursce, being 75 to 80 Company's rupees in Bombay, according to the last quotations I have observed, or a difference of *Co.'s Rs.* 24. 10. on an average per candy of seven cwts.

3. There

3. There is no principal mart in the Shorapoor country; the cotton is usually purchased in small quantities by itinerant dealers at the villages where it is produced; or orders are sent for it from the manufacturing towns in the neighbourhood, Narainpett, Dhanwara, Gurmut Kal, &c., in the Nizam's country; and Suggee Shahpoor, Rukmapoor, &c., in this district; or it is sent by the patells of villages, or merchants resident at Shorapoor, and elsewhere in the country, to these towns, and other marts which will be specified hereafter, on sale on their own account.

2. At what price does the ryot sell his cotton?

4. It does not appear the practice here to give or take advances which would have the effect in all probability of lowering the price to ryots; it may possibly be done in a few instances, but they are so few as to be undeserving of notice, and are taken by poor people whose produce of cotton is very trifling. There is no capitalist in the country who could make advances to any extent worth mentioning. If cotton is sold uncleaned by the ryot, the price per Shorapoor rough cotton candy of 240 seers is at present 10 rupees, which will produce $6\frac{1}{2}$ mds. of clean cotton, or in the following proportion:

	Rs.	a.	p.
Seed, $13\frac{1}{2}$ mau. at 3 annas per mau.	2	8	-
Cotton, $6\frac{1}{2}$ „ at 2 rupees	13	-	-
20 mau.	15	8	-
Deduct hire for cleaning the above	1	9	6
Balance	13	15	6
Apparent profit on each candy	Rs. 3	15	6

But from this must be deducted the expense of collecting small quantities from many persons, bullock-hire, &c.

5. It is most frequently the case that the ryot cleans and sells his own cotton, reserving the seed for the consumption of his own cattle; he thus obtains an advantage over the person who sells his cotton uncleaned, of considerable amount, according to the calculation in the preceding paragraph, and reserving the cleaned cotton, is able to take advantage of the market, or the general price that may rule in his district after the harvest, which of course is ruled by the crop, and the demand which may be existing. This year, as I have stated, it is not under two rupees a maund. I have no doubt that the small capitalists in each village lay up a considerable portion of cotton in the rough, and clean it themselves, thus deriving a profit; but the amount is after all inconsiderable in relation to the quantity of produce which is cleaned and sold by the ryots themselves.

6. A very general method of disposing of their cotton among the ryots is to spin it into yarn; one maund of cotton or 12 seers (pukha) will spin into 36 hanks of the coarsest yarn, which at 10 hanks for a rupee, gives

	Rs.	3	9	6
Deduct for cleaning one maund cotton	-	-	2	-
Net Price	Rs.	3	7	6

Or profit on cotton alone - Rs. 1 7 6

Finer yarn is six hanks for a rupee, and four hanks to a seer.

Thus, 12 seers, at four hanks per seer -- Rs. 48 - -

	Rs.	a.	p.
Six hanks per rupee	8	-	-
Deduct for cleaning	-	2	-
Price of cotton	7	14	-
Profit	2	-	-
Profit	Rs. 5	14	-

Finer still:

One seer, $22\frac{1}{2}$ hanks.	Rs.	a.	p.
12 ditto, 1 mau., 270, at 13 hanks per rupee	20	13	3
Price of cotton	2	-	-
Profit	Rs. 18	13	3

Note.—The cotton for the finest yarns is not cleaned by the machine, but carefully picked from the seed so as to preserve the staple.

I.
Bengal and
North Western
Provinces.

The finest spun, for turbans, scarfs, &c. :

One seer, 28 hanks.

	<i>Rs.</i>	<i>a.</i>	<i>p.</i>
One mau., 336 ditto, at 10 for a rupee - - - -	33	9	7
Price of cotton - - - - -	2	-	-
Profit - - - <i>Rs.</i>	31	9	7

7. Allowing two women spinners to a house, each woman spinning half a maund of the coarsest yarn per month, one maund of yarn would be produced.

	<i>Rs.</i>	<i>a.</i>	<i>p.</i>
Value, rupees - - - - -	3	7	6
Of finer, in the same time, ditto - - - - -	5	14	-
<i>Rs.</i>	9	5	6

Of still finer, in treble the time, ditto - - - *Rs.* 18 13 3

Of the finest, in ditto - ditto - ditto - - - *Rs.* 31 9 7

according to the ability of the spinners; thus materially increasing the value of small products. Yarn finds a very ready sale, both for local manufacturing consumption, and for exportation to the southward.

3. What is the expense of cleaning cotton by the churka or foot-roller, or by any other method which may be in use?

8. The average expense of cleaning cotton may be estimated from the calculation in para. 4, when the hire is paid upon the cotton produced. Another method of payment commonly resorted to, is to give the cleaners two-thirds of the seed; which, if the seed be at its present price, would give *Rs.* 1. 10. per gross candy of 240 seers. The amount to be paid varies, however, with the season; at present it is less than in the height of the monsoon, when the dampness of the cotton causes additional labour; it is then as high as two rupees or *Rs.* 2. 4. per gross candy. There is no difference in the charge, whether the foot-roller or churka is employed, and both are in common use; there are no other methods of cleaning cotton used, and except what is picked by the hand for very fine yarn, the whole of the cotton of the country is cleaned by either one of these methods.

4. What are the expenses of conveying cotton to the nearest port for shipment?

9. The nearest port of shipment is Rajapoor, in the Concan, to which some cotton is sent. The cost of transmission is calculated in two ways; if by a trader on his own bullocks, it is estimated at five rupees a bullock load for the load of 10 maunds. If the bullocks are hired, the cost is *Rs.* 7. 8. per load to Rajapoor. Little cotton, however, goes there direct, the greater quantity is taken to Sunkeshwur, near Kolapoor; whence I believe it to be sent to Rajapoor for the Bombay market, or perhaps to some extent used in manufactories in that part of the country.

10. An estimate of the cost and transit expense of a load of cotton, 10 maunds, or 120 seers, pukka, is as follows:—

	<i>Rs.</i>	<i>a.</i>	<i>p.</i>
Cost of cotton, 10 maunds, at 2 Hyderabad rupees -	20	-	-
Hire to Rajapoor - - - - -	7	8	-
Export duty from Shorapoor State - - - - -	1	-	-
Village dues on journey - - - - -	4	-	-
<i>Hyderabad Rupees</i>	28	12	-
Price at Rajapoor per load of 10 maunds - <i>Co.'s Rs.</i>	25	-	-
Exchange - - - - -	4	11	-
<i>Hyderabad Rupees</i>	29	11	-
Apparent profit - - - - -	15	-	-

The expense of the above will be diminished, and the profit increased by assuming the expense of the owner's bullocks being five rupees instead of *Rs.* 7. 8., which is generally the case.

11. An estimate of the cost, transit, and expense to Sunkeshwur or Meeritah, the bullocks being the merchant's property.

Cost of cotton, 10 maunds, at two rupees	-	-	-	-	-	<i>Rs. a. p.</i>
Bullock expenses	-	-	-	-	-	20 - -
Export duty	-	-	-	-	-	3 - -
Village dues on road	-	-	-	-	-	1 - -
						- 4 -
<i>Hyderabad Rupees</i>						24 4 -
Usual value at Sunkeshwur, 3 Sumboo rupees per maund	-	-	-	-	-	30 - -
Exchange, at two annas per rupee	-	-	-	-	-	3 12 -
						33 12 -
Apparent profit per bullock load	-	-	-	-	-	9 8 -

12. There is, besides, export to Sholapore, to which place the hire of a bullock is three rupees for eight marches of about 12 miles each; the expense about Rs. 1. 8. per bullock if the proprietor's bullocks go. Cotton sells for 2½ Beelapoor rupees per maund in Sholapore, and the cost of transit from Sholapore to Panwell by cart, is Rs. 4. 8. the cart carrying 30 maunds or three bullock loads, so that an estimate may be made, as follows, of the transmission of 10 maunds, or a bullock load.

Present price, Hyderabad rupees	-	-	-	-	-	<i>Rs. a. p.</i>
Hire of one bullock	-	-	-	-	-	20 - -
Proportion of hire by cart to Panwell, Co.'s Rs. 1. 8.	-	-	-	-	-	3 - -
Export duty from Shorapoor	-	-	-	-	-	2 - -
						1 - -
<i>Hyderabad Rupees</i>						26 - -
Price at Bombay, rate per bullock load of 10 maunds, Co.'s Rs. 1. 8.	-	-	-	-	-	24 7 10
Exchange on Co.'s rupees	-	-	-	-	-	4 9 3
						29 1 1
<i>Hyderabad Rupees</i>						29 1 1
Profit	-	-	-	-	-	3 1 1
Or if sold at Sholapore, cost of cotton, 10 maunds	-	-	-	-	-	20 - -
Expenses, as above	-	-	-	-	-	4 - -
						24 - -
Sale, at Beelapoor Rupees 2. 8. per maund	-	-	-	-	-	25 - -
Exchange	-	-	-	-	-	2 8 -
						27 8 -
<i>Hyderabad Rupees</i>						27 8 -
Apparent profit	-	-	-	-	-	3 8 -

13. By the above calculations, which are averages taken from a variety of statements, it appears rather more profitable to send the cotton to the coast by way of Sholapoor, on account of the cart carriage to be had at Sholapore, than on bullocks by way of Sunkeshwur to Rajapoor. Still the quantity that goes to the latter far exceeds the former, as the distance is shorter, and there is the advantage of a profitable return trade in kerana, or groceries.

14. It must be observed, however, in reference to the above, that two rupees per maund is a high price for cotton in these districts. Under a fair season the rate generally ranges from 1½ to 1½ rupee per maund, or Rs. 12. 8. to 15 rupees per load of 10 maunds, which would of course affect the statements given above in relative proportion. This year the crop is a very scanty one, and the price is therefore considerably higher than usual.

5. What is the average produce of cotton per beegah or acre?

15. An average good crop of cotton from a clean field of 30 beegahs, the size of the beegah being 3,864 square yards, is estimated with seed, at six candies, of 240 seers per candy, or

I.
Bengal and
North Western
Provinces.

1,440 seers, or 48 seers, 98 lbs. per beegah. A lesser crop would be five candies, or 1,200 seers, 40 seers per beegah. An inferior crop, 3 candies or 720 seers, 24 seers per beegah. A very poor crop, 2 candies or 480 seers, 12 $\frac{2}{3}$ seers per beegah.

16. The above would give an average of four candies at least on each 30 beegah field, and on all descriptions of soil, or 32 seers or 64 lbs. per beegah; and as the cotton crop is usually a good one, I do not think in a series of years that the average would be under five gross candies per field of 30 beegahs or 40 seers, 80 lbs. per beegah, as the highest average taken is often exceeded in favourable seasons, and in fertile roads. The above estimate is taken from several, obtained from different cotton districts of the Sumusthan.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried in the event of an increased demand?

17. It is difficult here, where the land is not properly defined, at least not to that degree as to ensure entire accuracy even in those portions which are khalsa, or which pay rent to the State, to afford so exact an answer to the first part of this question as I could wish, and it is rendered more difficult by the immense quantity of land, in proportion to the lands paying rent, which are held in enam, and rent free, tenures by the headars and other enamdars, of which there is no account, and the number of jagheer villages 211 in proportion to 299, the entire number in the Sumusthan over which I have no direct control. Having required returns, however, of all the cotton cultivation in all villages, whether khalsa or jagheer, and on all lands, whether khalsa or enam, I beg to submit the result in Table A. appended to this report.

18. As some care had evidently been taken in the compilation of the returns sent from the villages, the result may be somewhat approaching to the truth, at the same time, as I have no expectation that the full amount in the jagheer villages and in enam lands has been returned, so I should consider an addition of 10 per cent. to the whole amount of cultivation, or beegahs 3,940, would be under the result of actual measurement. The total in this case would be, beegahs 43,268.

19. I have only, however, received returns from 327 villages out of 510, and at the same average, which would not be far wrong; on the whole, the result would be beegahs 67,145 in 510 villages, khalsa and jaghire; assuming further, five candies gross as an average produce per curroo of 30 beegahs, the result would be, candies 11,190, or of clean cotton, at 6 $\frac{1}{2}$ maunds per candy, 72,735 maunds, value Rs. 1,43,570.

20. In general there is not much waste land in the Sumusthan, and in several of the best talooks the general cultivation has increased so materially within the last few years that there is little land comparatively now left waste which could be broken up for any very extensive new cultivation of cotton; waste land still, however, exists, and I have little doubt, that whatever remains, even so as not to afford grazing land for the village cattle, would be immediately broken up if there was fair encouragement for the produce of a staple which could be readily sold at a remunerating price.

21. Independent of the waste lands, however, there is a considerable proportion of cultivated land in an indifferent state of cultivation; that is, the fields are not properly cleaned up, and grass has grown up in patches through them, which it requires some outlay of capital to eradicate. This has been the result of idleness on the part of the farmers, in a great measure; of their having been accustomed to a very low rate of rent, which it required no exertion in particular to pay; and in many instances, of an unwillingness to expend capital upon their land when its continuance to them was uncertain, and to the produce being of unremunerating quality. This land would, I have no doubt, be greatly improved under any stimulus of the cotton cultivation.

22. For I am satisfied, by frequent discussions with the people of all classes, that, provided there was a ready market for cotton, and the price was regularly maintained by a steady demand to a remunerative rate, the cultivation of it would be preferred to almost any other, both because it is easy of management, and the returns are not liable to those great fluctuations which attend jowaree, the other great staple of the district. I have often been assured, and it is reasonable to suppose, that the lands at present neglected would be improved, those which are waste broken up, and jowaree to some extent superseded by cotton, to secure a return which would be regular and permanent, and which, in reference to its intrinsic value, would not be liable to any great fluctuation of price. These causes would, I am strongly of opinion, give a gradual increase of from 30 to 50 per cent. on the present cultivation, if not more.

23. The present price, two Hyderabad rupees per maund, is one that could be maintained without any loss to the trader or purchaser at Bombay, supposing the trade to be regularly opened to that port, and it would afford a very fair remuneration to the ryot here, as will be apparent by the following calculation.

In

In a field of 30 beegas, or by Shorapore land measure, one cooroo :

Gross produce, at general average taken in para. 15, five candies of 240 seers, including seed, at 10 rupees per candy - - - - -	Rs. a. p.
Deduct rent of land, at average of 11 annas per beegah -	50 - -
	22 8 -
Balance - - - -	27 8 -
Add profit upon five candies of cotton in cleaning and seed, as per para. 4, at 3.15 - - - - -	19 11 -
Profit to ryot - - - - Rs.	47 3 -

24. Should the ryot have broken up new land under the usual rate of rent-charge, his profit would be much greater, viz. :

30 beegas of land on local tenure, for seven years, at per annum - - - - -	Rs. a. p.
Meras charges per annum - - - - -	3 - -
	4 - -
	7 - -
Produce and value as above - - - - -	69 11 -
Deduct rent and charges - - - - -	7 - -
Profit to ryot - - - - Rs.	62 11 -

25. The foregoing will satisfy you that cotton to the ryot is a safe article of cultivation, allowing the average of five candies per 30 beegas only as produce, and the present price ten rupees per gross candy, including seed, or 16 rupees per cutcha candy of 8 mau. or 96 seers. When the price ranges below this rate, the return to the ryot is, of course, more unremunerative in the gross, though the household industry of the people in converting it into yarn raises the value to a very considerable extent, as I have already explained in para. 6.

26. At the present price, 16 rupees per candy of 192 lbs., cotton appears, by the following calculation, at a very favourable price for export to Bombay. The Bombay cotton candy is 7 cwt., 784 lbs.; therefore, 192 lbs. : 16 rs. : 784 lbs. = 65 Hyderabad rupees, less exchange, at 19 per cent. = 53 Co.'s rupees per candy of 7 cwt., or thereabouts.

27. The present price of Kompta and Barsee cotton, both of which are of similar quality to that produced here, is generally about 80 Co.'s rupees per candy, in Bombay; according to the above calculation, therefore, there would be a balance of 27 rupees per candy to meet charges, and the following estimates will afford comparison of the rates of transit by both routes used, viz., Sholapore and Panwell, and Sunkeshwur and Rajapoor in the Concan.

<i>Viâ Sholapore:</i>	Rs. a. p.
Cost of a Bombay candy of cotton, 7 cwt. as per para. 26	53 - -
Hire of bullocks for Bombay candy of 392 seers, three bullocks, Shorapore to Sholapore, at 3 Hyderabad rupees per bullock load - - - - -	7 7 -
Export duty from Shorapore, at 1 Hyderabad rupee per bullock load - - - - -	2 7 -
Hire of a cart from Sholapore to Panwell, carrying three bullock loads, at Rs. 1. 8. per load - - - - -	4 8 -
<i>Co.'s Rs.</i>	67 8 -

Boat-hire and charges from Panwell to Bombay not known.

Viâ Rajapore:

Cost of one Bombay candy - - - - -	53 - -
Hire to Rajapore, at Hyderabad rupees Rs. 7. 8. per bullock load, three bullock loads - - - - -	18 8 -
Export duty to Sholapore - - - - -	2 7 -
<i>Co.'s Rs.</i>	73 15 -

Boat-hire to Bombay not known.

I.

Bengal and
North Western
Provinces.

28. You will observe, that while the former gives a fair hope of profit, the latter barely covers the price of cost and carriage, and it is not inviting in reference to the risk and the state of the markets. When the cotton is at a low rate here, and is purchased by itinerant merchants, who drive their own cattle doubtless, the trade is more profitable than it appears under the present calculations; but the great inducement to take cotton to Rajapoor is the return trade in kerana or groceries, which is very profitable, and whilst there may be comparatively little profit on cotton, still there is always some, which, in conjunction with the kerana trade is sufficient inducement to make the adventure.

29. The foregoing will show you the manifestly greater advantage which carts possess over bullocks. From hence to Rajapoor cannot be further than Sholapoor is from Panwell, if indeed so far, but while a Bombay candy of 784 lbs. can be transported on a cart from Sholapoor to Panwell for *Co.'s Rs. 4. 8.*, the same quantity carried on hired bullocks from Sholapoor to Rajapoor costs *Co.'s Rs. 18. 8.* Rajapoor or some port on the western coast is evidently the proper outlet to the cotton trade of this country, and it would be most desirable to open means of direct conveyance by carts to that quarter. This consideration, however, forms a separate part of the general subject of this report, which I purpose to touch upon in its conclusion.

30. Having in the preceding paragraphs replied as fully as I am able to the questions in the Honourable Court's despatch, I beg to add, in pursuance of General Fraser's instructions, such knowledge as I possess of the cotton districts south and south-west of Shorapoor, and in general between the Kistna and Toongabudra rivers, the produce of which is sent to Compta on the western coast, and also those north of the Bheema, from which the marts of Sholapoor and Barsee are in some degree supplied for the Bombay market.

31. With few exceptions, the whole of the country south of the Kistna produces cotton in very considerable quantities. The cotton districts are as follows, with the revenue as nearly as I can ascertain them here :

	<i>Rs.</i>
Gelboorga	32,000
Kooknoor	20,000
Munwee	33,000
Kowtul, Bheemo, &c.	30,000
Singsoogoor, &c.	6,000
Moodgul	40,000
Jowulgera and Sirmoor	32,000
Raichoor	1,20,000
Deodroog, &c.	60,000
Copul Bahadur Bundry, &c.	30,000
Mooshki	30,000
Goorgoonta	20,000
TOTAL	5,23,000

In fact, of the whole tract, with the exception of Kanukgerrie, Tawurgera, Mikulkoonti, Nellogul, Kooshghee, &c., which are red or "mussub" soil, what the amount of produce may be it is impossible to say; but if the Shorapoor Sumusthan, which including jagheers and enam lands may be assumed as yielding an annual land revenue of five lacs of rupees, and has a cotton cultivation of beegas 67,145, according to the data assumed in paras. 18 and 19, then the above estimate would give, say 70,000 beegahs, which at the average assumed here, would yield about 11,720 candies of gross produce; I own that this is a vague and probably incorrect result; but as here the soil and products of districts are the same, as well as the mode of cultivation and character and habits of the people, and where cotton finds a more immediate sale for exportation than it does here, it seems fair to assume a proportion of produce in the form I have given it.

32. Of the cotton produced, that of Raichoor and its dependencies of Goboer and Murchire and of Deodroog to some extent, in fact of all those districts which lie near the Kistna, the greater part is sent to Muddoor, Jaumassett and Shumshabad, which are marts for general produce. The amount sent to these places is, I am credibly informed, nearly 4,000 bullock loads per annum, which again is sent to the north-east and east, to those districts of Telingana where cotton is not cultivated, but where it is required for local manufacturing consumption; a considerable quantity is required for the Gudwall district, where there are manufactories to a large extent, and for those districts farther to the eastward which border upon Kurnool.

33. The cotton of the more southern parts of this tract, that is, of the districts of Kowtal and Bhennoo, Capal, Jowalgeeree, &c., and the southern districts of Gelboorgah, &c., and goes principally to "Compta" on the coast, *via* Bellary, Dharwar, &c., and with the produce of the Bellary, Dharwar and other districts of the southern Mahratta country, it is known as Compta cotton in the Bombay market. Merchants come from Compta, Bellary, &c. with orders for cotton, and buy it up as they best can in the villages, or at district markets. They bring carts with them, on which the cotton is laden and despatched, and

and the merchants usually accompany their goods, seldom or ever giving advances for future supplies.

34. The cotton of the more western and south-western parts of the Nizam's country, that is, of Mooskhi and Moodgul, &c., is sent partly to Coompta, *via* Dharwar, and partly to Sunkeshwur near Kolapoor, and thence to Rajapoor on the coast, entirely on bullocks, at what rate of carriage hire, I am unable to ascertain.

35. Again, some of the Raichore, Deodroog, Gargoonta, &c. cotton comes to Shorapoor, and is sent with the Shorapoor cotton to Sunkeshwur or Rajapoor. The amount thus sent may be about 700 bullock loads per annum one year with another; this trade is entirely in the hands of the Lingaget Bunnias of these districts, who, having bullocks of their own, trade on their own account, or act as carriers for other merchants; no carts are used, nor are there any in the country.

6. The districts north of the Bheema, in which cotton is grown, are Gulbargah, Cheeta-poor, Afzulpoor, Allund, Gunjootee, Kuttee Marargee, Sohara, Nittoor, Nellinga, Bhalkee, &c. To some amount also in the neighbourhood of Nuldroog, Tuljapoor, and the districts of Bhurn and Darasew, and others of the tract termed Bala Ghaut; of this portion of his Highness the Nizam's country, the cultivation of cotton prevails most in the first five talooks I have mentioned, but even in them it is not, I understand, so general, nor is the product so fine or so plentiful as in the Shorapoor Sumusthan, or in the districts south and south-west of Shorapoor beyond the Kistna.

37. There is no doubt, however, that there is a very large produce, and that the marts of Sholapoor, Barsee and Wyrag, are principally, if not entirely, supplied from these sources; and again, from the Nizam's districts about Oodgheer, Rajoora, Gunjakhair, and as far as Kandahar, which also produce and export large quantities of cotton. There is very little cotton, comparatively speaking, grown in the Sholapore collectorate, in which Barsee, the largest cotton mart in this part of the Deccan, is situated; by far the greater portion of what is known in the Bombay market as "Barsee" cotton being the produce of those districts of the Nizam's dominions north of the Bheema, which I have enumerated.

38. I have no data for the estimation of rent-charges, amount of produce, or cost of transit of the more distant districts; but on comparing accounts sent to me from Galburgah and Cheeta-poor, with estimates I had made here, and which I have detailed, I found no material difference between them, except that the rent-charge in the Nizam's country is higher, in most instances, than that prevailing in the Sumusthan Shorapoor. On the other hand, the rate of bullock hire was less to Sholapoor and Barsee, which reduced the whole to about the general averages I have detailed. Translation of one of these memoranda is annexed to this Report, marked (B.).

39. Much more information, and of a more particular nature, possibly even to a register of the amount of cultivation in the Nizam's districts, I have mentioned, might be obtained from the local civil authorities, but without orders I have hesitated to address such, as I did not know personally, or to ask even those with whom I am acquainted, to give particular returns. Should, however, the point be considered desirable or important, and I should be authorised to do so, I shall be most happy to take measures to procure returns of the actual cultivation this year, and to direct the talookdars or their naibs, and the zemindars, to the best means of obtaining correct information, not only of produce, but of trade.

40. The price quoted at Bombay of "Barsee" cotton is generally the same, or nearly so, as that of "Compta." Thus it may be assumed that both are of the same quality; and as "Oomrawutee," or Berar is quoted about five Company's rupees per Bombay candy higher, it is evident that it is of a somewhat superior quality. Quality of cotton.

41. I have frequently examined the quality of cotton in various localities of the Sumusthan, and have observed considerable difference in it. That grown upon the ordinary rigur or black soil, which is connected with trap rocks or boulders, is of a rough, strong, but short staple; that, again, which is grown on lands in which limestone measures prevail is much superior, being longer in staple, and of a softer quality; and as the limestone tract is of great extent comparatively with the other, I should estimate that the produce of the latter would be at least as five to two of the former. No classification is, however, made by the dealers or merchants, who are probably unaware that any general difference exists.

42. The cotton grown is entirely of the native indigenous kind; and the same objections to it as to short staple, and in breaking of the dry leaves about the seed pod into the cotton, as well as of the thin shell of the pod itself at the time of gathering, exist here as elsewhere, where the same description of produce prevails, and which have been found so difficult to eradicate in the various cleaning processes resorted to in England. The only way to avoid this, and to pick the cotton clear of these incumbrances and dirt, would be to gather it early, and when the leaves and seed vessels are not quite withered. This, however, is not attended to; nor, indeed, unless the people could be assured of a constant demand, and possibly superior price, under the local purchases and directions of capitalists from Bombay (as has, I have understood, been accomplished to some extent in Berar), would they alter their present careless modes of proceeding.

I.
Bengal and
North Western
Provinces.

I.

Bengal and
North Western
Provinces.

43. I have made several attempts to introduce into the Sumasthan the Bourbon and New Orleans seed, which has succeeded so well in the Southern Mahratta country, and made trials of both in limestone and trap black soils, but hitherto without success to any extent. The cotton succeeded very fairly upon the limestone soils, and when sown at the usual time of sowing there, that is, about August. Last year, however, there was a total failure of the crop on the land where the American cotton was sown, which has induced me, with a new supply of seed from Dharwar, to try it again this season, upon a different principle.

44. For last year I tried small portions both of Bourbon and New Orleans cotton in red gravelly soil, sowing them at the very commencement of the monsoon, and the result was more complete than I could have supposed. The plants grew to a height of upwards of six feet, the branches spreading laterally about three feet from the stem. They were vigorous and healthy, the branches weighed down by the weight of the pods and leaves; and the produce, both in amount and in quality of staple, far surpassed any that had been grown in black soils, and a later period of the monsoon. I beg to transmit with this Report a sample of the cotton thus produced. I have carefully saved all the seed of the Bourbon cotton, and this, with the New Orleans received from Dharwar, is now being sown, under my own superintendence, on red and mixed soils, which I have selected. The amount of cultivation will probably be 100 beegas, which will afford a fair proof of the adaptation of the cottons to the red soil, which has never hitherto been tried here for cotton. Should this trial be successful, I should not despair of being able gradually to introduce the cultivation of both kinds of cotton among the ryots, upon the red soils which now bear produce of an inferior quality and value.

45. But whatever may be done locally to improve the produce of cotton, whether by introducing new varieties of seed, or by the clean gathering of what exists, it is evident that little can be effected, either to increase the quantity or maintain a profitable price, unless a larger demand, whether market or a better outlet for the produce, can be provided; and this applies with equal force as well to the districts of Sholapoor as to the northward and southward of the Nizam's country.

46. So long as these districts are dependent upon bullock carriage only for transmission of produce, it is impossible, as you will have observed by the calculations I have previously given, that it can be transported to any great extent, or with adequate profit, upon bullocks only (and that at present is the only means of transport available either to Sholapoor or to the port of Rajapoor, in the Concan), or that these districts can compete with others more favourably situated in regard to easy communication with established marts. But did a metalled road exist from the nearest port on the western coast, upon which carts could travel at all seasons, I have no doubt whatever not only that demand would materially increase, but, as a natural consequence, the amount and the value of the produce.

47. In this respect I have looked with some anxiety to the result of opening the port of Vizidroog, or Gheria in the Concan (which it has been ascertained is safe for the reception of large ships at all seasons), by the construction of a road down the Phonda Ghât, which leads to it, and to the extension of that road to Beejapoor and Sholapoor. This, if accomplished, would afford a regular, and, at the same time, a cheaper and more rapid mode of conveyance of cotton than exists at present; for there is no doubt that as many carts in proportion to the produce would in a very short time be employed upon it as now ply between Sholapoor and Panwell at extremely moderate charges, and even more, as the cotton of the whole of the districts, and of those of the south-western districts of the Nizam's country, would speedily find its way to such nearest points in reference to these localities as would be struck by the ordinary carriers.

48. It is evident from the calculations I have given antecedently, which are based upon ascertained rates of hire, that a Bombay candy of cotton, costing here 53 Co.'s rupees, could, did a road exist, and carts were employed, be transported to Vizidroog, the distances being about the same, at the same rate as from Sholapoor to Panwell, that is, from $4\frac{1}{2}$ to 5 Co.'s rupees, the same quantity costing $22\frac{1}{2}$ Hyd. rupees to reach Beejapoor on hired bullocks, which is probably about the same distance from hence as the new port of Vizidroog. Supposing that the rates were somewhat higher, say even 10 rupees per cartload of one candy, this would give 63 rupees as the cost of one candy at Vizidroog; leaving, at the rate quoted, 80 rupees per candy, 17 rupees profit, which could afford still greater increase of cost in transit or in local purchase, without loss. The cotton would be transported without that damage and dirt in loading and unloading which attend bullock conveyance, and it would have an advantage over that sent to Panwell, as it would be at once shipped for England, instead of having to bear the additional cost of boat-hire from Panwell to Bombay, re-landing at Bombay, and re-shipping for England.

49. Another advantage would be the saving of time, a great object. I do not hesitate to assert that a cart could travel three trips to and from the coast for two of any ordinary bullocks; and where a rapid return of capital is of undeniable importance to the farmer, as well as to the capitalist or merchant, this is an advantage not to be overlooked or underrated. Cotton here ripens, and is gathered from the end of March to the middle and end of April; consequently there remains little more than a month in which it can be cleaned and sent to the coast, or to the market where it finds sale. The consequence of this is, that comparatively little of the season's produce is immediately exported, or brings
return

return to the grower, but remains either in possession of the farmer, to be cleaned and sold as his necessities urge him to dispose of it, or, if in that of the local merchants, to be stored, gathering dirt and dust; thus, becoming depreciated in value, while his capital is also tied up and unemployed.

50. It is, therefore, if assistance to the cotton cultivation and to the trade be really desired by Government, most necessary to improve the means of transport in the first instance; and there could be no doubt that, were this effected by the opening of a road, increased produce, increased value, and quality of produce, would follow as a matter of ordinary course. I do not speculate upon the effect of the influx of capital, or upon the stimulus which judiciously supplied advances to farmers might have upon the increased growth of cotton; but I believe that these would be attended by ultimately beneficial results; for cotton merchants, whether European or native, would naturally follow where an opening had been made, and where evident profit was to be obtained.

51. On many other grounds the opening of a good road direct from the coast to Beejapoor would be of vast importance to the interests of the country it would pass through, and to all those districts which lay adjacent to it; but it would materially enhance the benefit if it could be prolonged from Beejapoor in a direct line to Hyderabad. In this case it would pass through the north-western districts of the Shorapoor State,* which produce a great part of the cotton of the country, and, crossing the Bheema about Ferozabad, would traverse part of the Galburgah and Cheetapoor talooks, which also produce cotton; while the districts on each side would all contribute their quotas of the same and other produce to general traffic. Nor would this be the only benefit. Grain, now frequently taken towards the coast by the Brinjaries in their journeys for salt, could be transmitted by the same road, oil-seeds, hemp, tobacco, madder, &c., all with profit, upon carts. There would be a continual return trade, and a very profitable one, not only to these districts, but to the mart of Hoomnabad, and thence to Domraotee in Berar, for such is the usual channel of trade, not only in kerana or groceries, but in salt. The latter is now entirely in the hands of the Brinjaries, whose importations are by no means adequate to the general consumption of the population, as is evident from the quantity of indifferent bitter salt made in the country, and usually consumed by all classes.

52. In regard to this line, which, as it would connect Hyderabad with the coast by a comparatively direct road, and also meet the present existing line from Masulipatam, I believe it may be said of its entire length that it passes over a level, or, at most, undulating country, in many parts over red soil which would be inexpensive to work, and very durable when made, and that where metalling was required excellent material is to be found, both kunkur and moorum, for the same purpose. By connecting Beejapoor, a central position, with Sholapoor on the one hand, and these districts, Cheetapoor and Hyderabad, on the other, there could be little doubt that the whole of the trade outwards in cotton, and inwards in groceries and British manufactures, metals, &c., would be greatly facilitated, accelerated, and, I believe sincerely, increased also.

53. In regard to British manufactures I need hardly perhaps state what will be evident on consideration, that the general absence of trade and connexion with the coast prevents their being brought into the country; that there is a very small consumption of them; nor are ordinary cloths usually to be obtained even in those large towns, villages, and even districts where their consumption would be insured if trade existed. With the exception of Sholapoor and Galburgah, the latter on account of its being a military station; possibly Narayanpetty, and Hoomnabad, and Shorapoor, to a small extent; Singsoogoor, since it has been a military station, I know of no other places in the vast and populous tracts of which they form as it were centres, in fact, within the area comprised between Sholapoor, Hyderabad, Kurnool, Bellary, Kulladghee, and Beejapoor, where English manufactures are ordinarily consumed, or are procurable, though they seem universally desired in preference to any other by the male population, and are worn whenever they can be obtained.

54. I need not, however, pursue this subject, which is capable of great extension, and, indeed, have to apologise for introducing it into the present report. I believe it, however, to have direct reference to the benefit and extension of the cotton trade, and of trade in general, and unquestionably advantageous to the general interests and prosperity of the country and the people at large, and on these grounds desire that the results of my own local observation and experience should meet the consideration of Government with those of other parties whose attention may have been attracted to the subject.

I have, &c.

(signed) Meadows Taylor,

Shorapoor, 23 June 1848.

On Special Duty.

I.
Bengal and
North Western
Provinces.

* The Talooks of
Andola and Nel-
loogee.

(A.)

RETURN of COTTON CULTIVATION in 327 Villages of the Shorapoor Sumwasthan, 1257 Fuslee, A. D. 1847-48.

NAMES of TALOOKS.	Number of Villages.	Number of Fields.	Amount of Beegas.	Cooroo, at 30 Beegas per Cooroo.	Produce per Cooroo.				Deduct Seed at 10 Mau. per Candy.	Remainder cleaned Cotton.	Value at 40 Hyderabad Rupees per Candy.	
					At 5 Gross Candies per Cooroo.	At 4 Gross Candies per Cooroo.	At 3 Gross Candies per Cooroo.	Averages.				
1. Andola - - -	39	674	7,980	266	1,330	1,064	798	1,064	744 14	319 4	Rs. 12,768	a. p. - -
2. Nelloogee - - -	57	829	5,955	198 $\frac{1}{2}$	992 $\frac{1}{2}$	794	595 $\frac{1}{2}$	794	555 16	238 4	9,528	- -
3. Warrageeree - - -	24	361	2,572 $\frac{1}{2}$	85 $\frac{1}{2}$	428 $\frac{1}{2}$	343	257 $\frac{1}{2}$	343	240 2	102 18	4,116	- -
4. Korikul - - -	12	153	1,642 $\frac{1}{2}$	54 $\frac{1}{2}$	273 $\frac{1}{2}$	219	164 $\frac{1}{2}$	219	153 6	65 14	2,628	- -
5. Byehbal - - -	4	62	142 $\frac{1}{2}$	4 $\frac{1}{2}$	23 $\frac{1}{2}$	19	14	19	13 6	5 14	228	- -
6. Kembaree - - -	46	364	3,720	124	620	496	372	496	347 4	148 16	5,952	- -
7. Maluai - - -	17	472	1,975	132 $\frac{1}{2}$	662 $\frac{1}{2}$	530	397 $\frac{1}{2}$	530	371 -	159 -	6,360	- -
8. Malgettee - - -	1	3	30	1	5	4	3	4	2 16	1 4	48	- -
9. Koonsyee - - -	12	106	840	28	140	112	84	112	78 8	33 12	1,344	- -
10. Sirwall - - -	6	317	2,692 $\frac{1}{2}$	89 $\frac{3}{4}$	448 $\frac{3}{4}$	359	269 $\frac{1}{4}$	359	251 8	107 14	4,308	- -
11. Muddirkee - - -	50	369	3,615	120 $\frac{1}{2}$	602 $\frac{1}{2}$	482	361 $\frac{1}{2}$	482	337 8	144 12	5,784	- -
12. Dewapoor - - -	10	113	720	24	120	96	72	96	67 4	28 16	1,152	- -
13. Hemnoor - - -	22	341	2,700	90	450	360	270	360	252 -	108 -	4,320	- -
14. Rustapoor - - -	26	388	2,670	89	445	356	267	356	249 4	106 16	4,272	- -
15. Sagger - - -	1	1	90	3	15	12	9	12	8 8	3 12	144	- -
	327	4,553	39,345	1,311 $\frac{1}{2}$	6,557 $\frac{1}{2}$	5,246	3,934 $\frac{1}{2}$	5,246	3,672 4	1,573 16	62,952	- -

Shorapoor, 24 June 1848.

(signed) Meadows Taylor.

(B.)

TRANSLATION of Memorandum regarding Cotton from Galburgah.

1 Gross candy of cotton with seed, 240 seers produces—
6 mau. of cotton.
14 mau. of seed.
20 mau. or 1 candy.

Cost of cleaning, Hyd. Rs. 2. 8. per candy.

Result:									
Value of the above:									
6 mau. of cotton, at Rs. 2. 4.	-	-	-	-	-	-	-	13	8 -
14 mau. seed - - - - -	-	-	-	-	-	-	-	1	13 -
Total - - - - -	-	-	-	-	-	-	-	15	5 -

Detail of one bullock load of cotton from Galburgah to Sholapoor:

1 bullock load, 10 mau. at Rs. 2. 4.	-	-	-	-	-	-	-	22	8 -
Bullock hire to Sholapore - - - - -	-	-	-	-	-	-	-	1	8 -
Duty and village dues - - - - -	-	-	-	-	-	-	-	1	8 -
Sacking cloth - - - - -	-	-	-	-	-	-	-	1	8 -
								Hyd. Rs.	27 8 -*
								or Co.'s Rs.	22 8 -

Detail of one bullock load of cotton from Galburgah to Shorapoor:

One bullock load, at Rs. 2. 4.	-	-	-	-	-	-	-	22	8 -
Bullock hire - - - - -	-	-	-	-	-	-	-	1	8 -
Duty, &c - - - - -	-	-	-	-	-	-	-	1	8 -
Sacking - - - - -	-	-	-	-	-	-	-	1	8 -
								Rs.	27 8 -*

Detail

* N.B.—There is some error in the originals throughout these statements.

Detail of a bullock load of cotton from Gulburgah to Tandoor:

	<i>Rs.</i>	<i>a.</i>	<i>p.</i>
One bullock load, at <i>Rs.</i> 2. 4.	22	8	-
Bullock hire	1	8	-
Duty, &c.	1	-	-
Sacking	1	8	-
	<i>Rs.</i>	26	- - *

I.
Bengal and
North Western
Provinces.

N.B.—The sacking should not be charged, as the bag is usually brought back, the cotton being weighed out, and repacked in other bags.

The calculation of a cost of a bullock load of cotton from Gulburgah to Sholapoor, as here detailed, shows, without—

Sacking cloth	-	-	-	-	-	-	-	<i>Hyd. Rs.</i>	26	-	-
Estimate from Shorapoor, as per para. 12	-	-	-	-	-	-	-		26	-	- *

(True copy).

(signed) *J. Low*,
Officiating Resident.

Question. 1. WHAT is the price of cotton, freed from seed, in the principal mart or marts in your district?

Answer. At Oomrawutee about $54\frac{1}{2}$ rupees per kandy of 750 lbs. avoirdupois; at Kaumgaum about $20\frac{1}{2}$ rupees per pullah of 240 lbs.

Oomrawutee and Kamgaum are the two great marts for cotton in Berar. From the former a large quantity of cotton is exported to Mirzapore, as well as to Bombay. The reason that the cotton is exported to Mirzapore in preference to Bombay, though the land journey is much longer, is to avoid the extremely heavy and arbitrary duties levied upon it and every other species of merchandise passing through the Nizam's territories, and which are avoided in going to Mirzapore, as the road crosses the frontier about 30 miles from Oomrawutee, and enters the Nagpore country.

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?

2. The ryot sells his cotton both cleaned and uncleaned, and at about one rupee per pullah of 240 lbs. avoirdupois below the market price, and chiefly to the mahajuns, who clean it and sell it again in large quantities to the purchasers for the foreign markets. An advance is always made, and from this advance arises one of the great evils of the cotton trade. The money having been advanced by the purchasers; who buy the cotton in large quantities for exportation, they are obliged to take whatever produce is brought to them or lose their money, and the mahajuns, who are the principal cleaners of the cotton, and the ryots who cultivate it, knowing this, mix with the clean and good cotton all sorts of rubbish, and the bad and inferior cotton of the last year, which admixture can never be again entirely separated; and this it is that makes the Berar cotton so much inferior in the market price to the Surat cotton, to which it is, when properly cultivated and gathered, hardly inferior. The cultivators, again, when they have received advances, are frequently not allowed to gather the cotton in small quantities as the pods ripen, but are obliged to wait until the crops have been assessed, and by this time much of the cotton is frequently spoiled by the pods falling off, and dry leaves, &c. getting mixed with them.

I may here add, also, as regards the price the ryot sells his cotton at, that the large number of coins, especially copper, current in the Nizam's territories, is a great hardship upon the cultivator, as enabling the tax collector, &c. to extort, under the pretence of the coin being of an inferior description, almost any amount they choose.

3. What is the expense of cleaning cotton by the churka, or by any other method they may use?

About $2\frac{1}{2}$ to 3 rupees per pullah of 240 lbs. $1\frac{1}{4}$ kandy (each kandy 778 lbs. avoirdupois) uncleaned will yield a pullah of 240 lbs. cleaned cotton. The cotton seed, after separation, sells for about $3\frac{1}{2}$ to 4 rupees per kandy.

4. What are the expenses of conveying cotton to the nearest point for shipment?

From Oomrawutee the cotton is principally conveyed either north-east to Mirzapore, or south-west to Bombay by brinjaries, at a contract price, which however varies greatly, according to the quantity of rain the preceding season, affording fodder for their bullocks or not. A bullock load is 120 seers of 80 rupees, of 172 grains weight, or about 2 lbs. avoirdupois, and the hire is per bullock load; to Bombay in the cold weather four rupees, in

* See note on preceding page.

I.
Bengal and
North Western
Provinces.

in the dry weather $5\frac{1}{2}$ rupees, and in the wet weather seven rupees. Few carts, except the common native carts, with solid wooden wheels and axles are employed in Berar, as there are no made roads, and they are only used between village and village.

5. What is the average produce of cotton per beegah, or acre?

A beegah of about 150 feet square in an average year will produce of kupas, *i. e.* cotton and seed together, nearly $\frac{1}{3}$ kandy of 778 lbs.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried in the event of an increased demand.

I have not the means of accurately answering this question, but the average export of cotton a few years ago from the north and west of the Nizam's dominions was about 25,000 kandies. The cotton cultivation has of late years fallen off very considerably, and whenever I have asked the ryots why land which I had seen under cotton cultivation was planted with jowaree or other grain, they have invariably replied, that the cotton cultivation did not now pay them, if they cultivated it properly, allowing the land to be fallow every second or third year (cotton should only be grown every second or third year, according to the soil), and the restrictions as to gathering it, and the necessity they were under of selling it to the people who had made them advances, together with the high arbitrary duties, and the difficulty of transporting it, when gathered, were so oppressive, that they preferred cultivating any other crop; should however these restrictions be removed, it would be difficult to say to what extent cotton might not be cultivated in Berar.

(signed) R. Dorin, Captain,
On Special Duty.

(True copy.)
(signed) J. Low, Officiating Resident.

Question 1. WHAT is the price of cotton, freed from seed, at the principal mart or marts in your district.

Answer. In the chief mart in Western Berar, Khamjam, it is at present *Hyderabad* Rs. $17\frac{1}{2}$ per pullah of about 240 lbs. avoirdupois, but it thus fluctuated from 1840 to 1846, from 16 to 30 rupees the pullah.

2. At what price does the ryot sell cotton, cleaned or uncleaned, with or without advance?

This depends entirely upon the state of the market; I have known it fluctuate from 15 rupees the khundee of kupas (cotton with the seed) to 25 rupees the khundee; one and a quarter kundee of kupas is calculated to produce one pullah of cleaned cotton. The ryots generally sell their kupas to village muhajuns (bankers) who are most of them also cotton dealers, from whom they receive early advances, at 2 and per mensem, according to the reputation of the borrower; they also contract to deliver it after being freed from seed, some of them, however, bring their cotton, both cleaned and uncleaned, to the market themselves.

3. What is the expense of cleaning cotton by the churkha or foot-roller, or by any other method?

In Western Berar, and throughout the province generally, the cotton is cleaned by the hand churkha, at which two women are employed; the cost of cleaning is about $2\frac{1}{2}$ rupees per pullah of 240 lbs. of cleaned cotton; one khundee of kupas weighs 778 lbs.

4. What are the expenses of conveying cotton to the nearest port?

The whole of the cotton produced in Western Berar and Ballaghât, and a large portion of that of Eastern Berar, is exported to Bombay through khundies, and *via* Moongeepytun and Ahmednuggur. The expense of conveyance fluctuates very considerably; I have myself paid from $2\frac{1}{2}$ rupees to $12\frac{1}{2}$ rupees for the pullah, but these were extreme cases. From five rupees to eight rupees the pullah may be considered the common rates.

5. What is the average produce of cotton, per beegah or acre?

I am unable to answer this query from my own knowledge, but one beegah of 150 feet square, is supposed to yield three khundeas of kupas.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried in the event of an increased demand?

I am unable to answer the first part of this query. With regard to the latter, having for many years at different times been engaged in the cotton line of business in the Wurdha districts, and in Western Berar, I may say from personal observation, that the cultivation of cotton in the province might be extended almost to an unlimited amount.

In

In 1824-25 only 2,000 pullahs of cotton were despatched from Khâm-gâm to Bombay. In 1841 about 1,20,000 pullahs, equivalent to 28,800,000 lbs. were exported from Western and Eastern Berar, and Berar Ballaghât, to Bombay; besides what may have been sent to Mirzapore, on the Ganges from Oomrawuttee; by this increase alone, even under many seriously discouraging circumstances, it may be easily anticipated to what extent the growth of cotton could be augmented under due encouragement and protection.

(signed) *R. H. Fenwick, Capt.*
His Highness Nizam's Pension Estab't.

(True copy.)

(signed) *J. Low, Officiating Resident.*

REPLIES to the Queries proposed by the Government of India, given by Pestonjee Viccajee, regarding the Cotton Trade, &c. in the Nizam's Country.

Query 1. What is the price of cotton, freed from seed, at the principal mart or marts in your districts.

Reply. There are two principal marts in the Berar zillah, Khamgaum and Oomrawuttee; to the former are attached the petty marts of Akoot, Argaum, Jalgaum, Malkupoor, Jamode, &c. and to the latter those of Karanjah, Kullagaum, Maholee, Nandgaupett, &c.; the dealers of Khamgaum purchase cotton freed from seed at prices averaging in cheap seasons from *Hyd. Rs.* 15 to 20 per pullah of 120 Indian seers or 240 lbs., and in dear seasons from *Hyd. Rs.* 25 to 35 per pullah; these prices are however determined and vary according to the produce of cotton in several countries, and the state of the markets at Bombay and Mirzapore, to the former of which the larger exportation, and to the latter the smaller, is made. Besides the Berar zillah, there are other small marts in Basmut and Madnar, &c. and a large mart at Gangavutty in the Raichore talooka, where also the dealers purchase cotton.

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?

The ryots do not sell cleaned cotton, but only uncleaned, with and without advances; of the uncleaned cotton mixed with seed, there are three different sorts, the value of which in cheap seasons is from 11 to 15 Hyderabad rupees per pullah, a pullah of which when cleaned and freed from seed, leaves of cleaned cotton from one-half to three-quarters pullah; the dealers who make advances purchase the cotton from 8 to 12 annas per pullah cheaper than the above rates.

3. What is the expense of cleaning cotton by the churkha or foot-roller, or by any other method which may be in use?

In Berar zillah the cotton is cleaned by country churkhas, and the expense of cleaning one pullah mixed with seed is from 14 Hyderabad annas to *Rs.* 1. 2. per pullah, the seed itself being also delivered to the dealer, but no charge is made when the cleaners are allowed to retain the seed, because the value of the seed is estimated to be equal to the above rates for cleaning.

4. What are the expenses of conveying cotton to the nearest port for shipment?

From the principal marts of Khamgaum and Oomrawuttee, and their subordinate marts, the cotton is conveyed to the bunders of Panwell and Cursellis, in the Bombay Presidency, at the hire of four to five Hyderabad rupees per pullah from the former, and at six to seven Hyderabad rupees per pullah from the latter and their subordinate marts; in addition to which a charge of 12 Hyderabad annas to one rupee per pullah is incurred in packing the cotton, independent of the transit duties (rah-daree) within his Highness's territories, charged at several stations of the Sircar, and other stations belonging to jagheerdars, and the right (wiswa) of Moourddum and the watcher at night, &c., which all amount from one to one and a half Hyderabad rupees per pullah, exclusive of the custom charged in the Bombay Presidency.

5. What is the average produce of cotton per beega or acre?

For a very long time past no system has obtained of measuring and surveying the land in his Highness's territories, and the fields for the several products are not separate, the cultivators growing cotton and grain in their respective fields together and indiscriminately, as their inclination or interest dictates; consequently no correct information can be given on the subject.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried, in the event of an increased demand?

It cannot be correctly ascertained, for the reasons given in the above reply, what quantity of land is under cotton cultivation; but in the event of an increased demand, and the

I.
Bengal and
North Western
Provinces.

I.
Bengal and
North Western
Provinces.

measurement and survey of the land being made, and a proper rate fixed agreeably to the description of the several lands according to the estimated produce for the Government tax payable by cultivators, which at present and for a long time past is at several places unreasonably very high, and in other places unreasonably very low, there is every hope that the present produce would be doubled.

Hyderabad, 17 February 1848.

REPLY to the *Nota Bene*.

An acre is equal to 4,840 square yards.

There is no measurement of land by beegas, but a beega is equal to $4,444\frac{1}{2}$ square yards.

One pullah is equal to three Indian maunds, or 120 Indian seers, and one Indian seer equal to the weight of 80 Co.'s rupees.

The exchange between Hyderabad and Co.'s rupees (by the former of which the cotton dealing is carried on in the Nizam's country) depends upon the state of money markets at several places. However, the probable rate for 100 Hyderabad Chulnee rupees is 84 Co.'s rupees.

(True copy.)

(signed) *J. Lowe,*
Officiating Resident.

Ordered, that a copy of the above despatch be sent to the Home Department (Revenue), with reference to the extract from that department of 15 January last, No. 20, for communication to the Honourable the Court of Directors.

(A true extract.)

(signed) *P. Melvill,*
Under-Sec. to the Govt. of India.

Home Department, Revenue.—(No. 18 of 1848.)

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

IN continuation of our letter No. 16, dated the 12th ultimo, we have the honour to forward the accompanying copy of a communication from the Deputy Commissioner of Seonee, containing information as to the price of cotton, and the extent to which it is cultivated and can be cultivated in that district.

We have, &c.

(signed) *Dalhousie.*
F. Millet.
J. H. Littler.

Fort William, 11 September 1848.

(No. 4127 A. of 1848.)

From *C. Allen*, Esq., Officiating Secretary to Government in the North Western Provinces, to *G. A. Bushby*, Esq., Secretary to the Government of India, Home Department, Fort William.

Sir,

IN continuation of my letter No. 3966 to your address, dated the 28th July last, regarding the cotton cultivation in India, I am directed by the Honourable the Lieutenant-governor to transmit to you, for the purpose of being laid before the Right honourable the Governor-general of India in Council, the accompanying copy of a letter No. 87 from the Commissioner of the Saugor and Nerbudda Territories, dated the 3d instant, with its enclosure on the subject.

I have, &c.

Agra, 12 August 1848.

(signed) *C. Allen,*
Offg. Sec. to Government, N. W. P.

Revenue Depart-
ment.

(No. 1 in No. 4127 A. of 1848.)—(No. 87 of 1848.)

From Lieutenant-Colonel *W. H. Sleeman*, Commissioner of the Saugor and Nerbudda Territories, to *C. Allen*, Esq., Officiating Secretary to Government, North Western Provinces, Agra.

Sir,

IN continuation of my letter No. 82, of the 19th ultimo, I have the honour to submit the Revenue. copy of a letter No. 49 of the 18th idem from the Deputy Commissioner at Seonee on the subject of the cultivation of cotton.

I have, &c.
(signed) *W. H. Sleeman*,
Commissioner.

Jhansee, Commissioner's Office,
3 August 1848.

(True copy.)
(signed) *C. Allen*,
Offg. Sec. to Govt., N. W. P.

(No. 2 in No. 4127 A. of 1848.)

(No. 1 in No. 87 of 1848.)—(No. 49 of 1848.)

From Captain *H. Wakeman*, Deputy Commissioner, 2d Class, to Colonel *W. H. Sleeman*, Agent Governor-General, Jhansie.

Sir,

IN reply to your letter to the address of my predecessor, under date the 14th February 1848, No. 61 and its enclosures, respecting cotton, I have the honour to state as follows:

1. The price of cotton, freed from seed, are sold at five Nagpore rupees per maund of 40 seers, of 80 kuldars each.
2. The ryots sell their cotton as above, cleaned, with and without advances.
3. The expense of cleaning cotton by the churka is 10 Nagpore annas per maund.
4. The expense of conveying cotton to Mirzapore is three Company's rupees per maund.
5. The average produce of cotton per acre is six maunds.
6. The quantity of land under cultivation with cotton is 6,000 acres, and the extent can be cultivated to 9,000 acres only.

I have, &c.
(signed) *H. Wakeman*,
Deputy Commissioner, 2d Class.

Seonee, Office of Deputy Commissioner,
18 July 1848.

(True copy.)
(signed) *W. H. Sleeman*,
Commissioner.

(True copy.)
(signed) *C. Allen*,
Offg. Sec. to Govt., N. W. P.

Home Department, Revenue.—(No. 6 of 1849.)

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

IN continuation of our despatch, No. 18, dated the 11th September last, we have the honour to transmit the accompanying reports received from the several districts of the North Western Provinces, containing information required by your Honourable Court regarding the cultivation of cotton in India, together with a general statement prepared by the Sudder Board at Agra, exhibiting in a concise form the information thus obtained. A letter from the Board communicating their observations on the subject, also accompanies.

We have, &c.
(signed) *J. H. Littler*.
F. Currie.
J. Lewis.

Fort William, 19 May 1849.

I.

Bengal and
North Western
Provinces.

(No. 1500 of 1849.)

From *C. Allen*, Esq., Officiating Secretary to the Government North Western Provinces to *F. J. Halliday*, Esq., Secretary to the Government of India, Home Department, Fort William.

Sir,

Revenue Depart-
ment.

IN continuation of my letter, No. 4127 A., to your address, dated the 12th August last, regarding the cotton cultivation in India, I am directed by the Honourable the Lieutenant-governor, to submit to you for the purpose of being laid before the Honourable the President in Council, the accompanying copy of a letter No. 92, from the secretary to the Sudder Board of Revenue, dated the 27th February last, with its enclosures, on the subject.

I have, &c.

(signed) *C. Allen*,

Agra, 28 April 1849.

Offg. Secy. to Govt., N. W. P.

(No. 1 in No. 1500 of 1849.)—(No. 92 of 1849.)

From *William Muir*, Esq., Secretary Sudder Board of Revenue, North Western Provinces, to *C. Allen*, Esq., Officiating Secretary to Government in the North Western Provinces.

Sir,

Revenue.

Present :
H. S. Boulderson,
Esq., junior mem-
ber.

COPIES of the order of Government No. 529 of 12th February 1848, having been forwarded to all the commissioners of divisions in the North Western Provinces, the Sudder Board of Revenue, North Western Provinces, have received in return the reports herewith submitted, showing the cost of cultivating, cleaning, and exporting cotton, and the extent to which the cultivation may be increased.

2. Excepting Saugor, the reports of which division were forwarded to Government direct, a general statement exhibiting the information supplied from all the districts of these provinces has been prepared in this office, and accompanies the separate returns. The Board direct me to offer also the following general observations for the consideration of his Honour the Lieutenant-governor.

Area cultivated.

3. The area cultivated for cotton is reported at 10,02,040 acres, which may it is estimated be extended to 16,89,662 acres; but this includes territory which affords no supplies for Europe; the exports being derived from a tract which extends no higher within the Doab than Allyghur, but in the south-western side or right bank of the Jumna, includes districts of the Allahabad, Agra, and Delhi divisions, as far as Rohtuck, which contains important marts. Exportation is also spoken of as taking place from Rohilcund, but it seems to be limited to the western portion of Budaon, and to the mart of Chundouse in Moradabad, and as the article produced is of inferior quality, Rohilcund may be left altogether out of the account. The more northern and western districts in the plains in which cotton is grown, generally require it for their own consumption, or for places in their vicinity, or when there is a surplus it is exported to the states westward. The hill districts on the north produce little or none; and with respect to the remaining division of Benares, however well situated it is as respects exportation, and whatever may in future be effected in realization of the Commissioner's expectations, various prejudices have hitherto operated against its natural advantages, so that the quantity it at present yields is insignificant.

4. The more productive of the exporting districts (*vide margin* *) have 8,29,753 acres under cultivation, which it is stated may be extended to 14,74,801 acres, and if the Benares division

	ACRES.	ACRES.
*Rohtuck - - -	14,552	18,750
Ganjam - - -	29,617	35,418
Allyghur - - -	69,050	69,050
Moradabad - - -	50,000	1,00,000
Budaon - - -	34,091	79,489
Agra Division - -	2,83,156	5,04,881
Allahabad Division -	3,49,287	6,67,213
TOTAL - - -	8,29,753	14,74,801

division be added, the extension will be from 8,34,669 to 14,93,040. Whether any further addition should or should not be made is a question. The district officers consider the soil itself unsuited to the cultivation, but the Commissioner seems to doubt the fact as respects zillah Goruckpore. His observations are here quoted for facility of reference.

Bengal and
North Western
Provinces.

Remarks by Commissioner of Benares in Letter No. 235, dated 16 August 1848,
Para. 13.

"In this division the cultivation of cotton is little more than nominal. We have these facts before us, that 30 years ago, poppy cultivation in this district was considered a dubious speculation, and that not only do Government now gain nearly 30 lakhs of rupees by present operations, but all classes of people, even Brahmins, have put their hands to it, and that only 12 years ago the sugar-cane was limited to one portion of the district, and superstitious objections by native agriculturists has despite of subsequent temporary over-speculation and its evils, resulted in marvellous success, dissipating the heavy anxiety of financial pressure from a rapid increase of assessment to the extent of 15 lakhs of rupees."

5. Several documents which accompanied the Commissioner's Report offer important information, as respects Goruckpore. But whilst the Commissioner agrees with the Collectors of the other districts as to the unsuitable nature of the soil, it may be found that this difficulty has no real foundation. On this point the Board beg to direct attention to the following remark of Mr. Pearson, deputy collector at Calpee.

Para. 7.—Extract of Letter, No. 50, dated 9 June 1848.

"As, however, no kind of land is unsuitable for the purpose, except such as is low or exposed to inundation, there can be little doubt that if an increased demand should raise the price of the article, a much greater extent of land might be devoted to its production."

6. The opinion of Mr. Bruce, uncovenanted deputy collector at Cawnpore, whose experience is known to the home authorities, may also be thought worthy of special notice. He observes, that under certain conditions and encouragements he would undertake to produce as much good merchantable cotton as may be required, and not to cost, when landed in England, more than 3 $\frac{1}{2}$ d. per lb. In his opinion there is no difficulty whatever as to the means of extending the cultivation.*

7. The price of cotton at the principal exporting marts varies from Rs. 5. 15. 3. in Goorgaon to Rs. 10. 6. 5., the rate for the ordinary maund of the best description in Furruckabad. The average of all these marts is a little above eight rupees.† The average price of cleaned cotton realised by the ryot is Rs. 7. 14., or, when he receives advances, Rs. 6. 11. But the system of making advances is not general, though it apparently reduces the cost from three per cent. in some districts, to 10 in others. When the East India Company's investments were provided, purchases were not, it seems, made by advances, and there is no encouragement offered to have recourse to that method now.

Price in marts.

8. The price of the uncleaned cotton with the seed as sold by the ryot, varies from two rupees to Rs. 2. 8. per maund.

9. The churkee is the instrument invariably employed by the natives to free the staple from seed, after which remaining impurities are separated by the bow (dhunne), though the latter process does not appear to be resorted to for cotton shipped to Europe. The practice very generally is to give the seed, or a portion of it, as remuneration for cleaning; but where money is given it ranges from six annas per maund to above a rupee, the weight of the cleaned article being understood, and the usual proportion being a maund of clean cotton to three maunds of seed; that is, four maunds of cotton with the seed yield one maund of clean staple. This item of charge may perhaps be reduced by the introduction of the machine in the improved form recently given to it by European inventions.

Mode and cost of
cleaning.

10. Very different estimates have been given of the cost of transport to Calcutta, the only port for shipment. Thus the Budaon return fixes it at 10 a. 10 p., and that of Furruckabad at only 8 a. 4 p. But the mere carriage forms only a proportion of the actual charge, and therefore such estimates as Rs. 2. 14. (Koonah *viâ* Calpee) are given from some of the districts. The greatest part of the exported cotton changes boats at Mirzapore, the charge

Cost of transport.

* Extract para. 7, No. 52, dated 15th March 1848. "If the associations and manufacturers who have been memorialising and soliciting the authorities in England regarding the increase of cultivation of cotton in India, actually wish for it, and will guarantee that all that may be produced through my exertions in this country, will be taken by them, and paid for here, and will send out responsible agents to receive charge of the cotton either here or at Calcutta, I will engage and undertake to produce for them as much real good merchantable cotton as they may require, and not cost them when landed in England, more than about 3 $\frac{1}{2}$ d. per lb., which I think very moderate, considering the Indian cotton generally realises from 4 $\frac{1}{2}$ d. to 5 $\frac{1}{2}$ d. per lb. in England."

† This at 1 s. 10 d. per rupee, is at the rate of 2.1 pence per lb. for cleaned, but unscreened cotton.

I.
Bengal and
North Western
Provinces.

charge from which place is uniformly given at *Rs.* 1. 4. per maund, including every item, thus:—

	<i>Rs.</i>	<i>a.</i>	<i>p.</i>
Boat-hire and churrundur (servant in charge)	-	7	6
Insurance	-	4	-
Insurance office peon (guard)	-	-	9
Pilotage, &c.	-	1	-
Agent's commission	-	-	9
Hoondean (premium on drafts)	-	5	6
<i>Rs.</i>	1	4	-

This sum has of course to be added to that of such returns as give the charges only to Mirzapore.

As examples of the charges previously incurred, the information supplied by officers at some of the greater marts is here given:—

	<i>Rs.</i>	<i>a.</i>	<i>p.</i>
From Cawnpore to Mirzapore, including every charge	1	-	-
From Agra to Mirzapore (duty added to the return)	1	-	-
Ditto Humeerpore, average of different marts, ditto ditto	1	1	7
Ditto Banda, carriage and duty	-	14	3
Ditto Calpee, all charges included (cotton previously brought from Koonch), bears a further charge of 6 <i>a.</i> 7 <i>p.</i>	1	4	3
Ditto Allahabad to ditto, carriage, insurance and duty	-	9	7

The following charges are included, taking Calpee as the instance:—

	<i>Rs.</i>	<i>a.</i>	<i>p.</i>
Brokerage	-	-	3
Weighing and portorage	-	-	3
Packing and thread	-	-	3
Portorage to ghat	-	-	3
Commission of agent	-	-	9
Boat-hire and churrundur (servant in charge)	-	4	-
Government duty and Durkhast nuvees	-	9	9
Hoondean	-	1	6
Insurance and peon	-	1	9
Gomashta and peon	-	1	6
<i>Rs.</i>	1	4	3

The cost is somewhat increased to the trader in cotton grown on the right bank of the Jumna, as he has in most instances to pay the duty before his despatch reaches the ghaut, which has the effect of multiplying the number of his transactions, and taking a part of his capital out of his hands for a period not required in the other cases.

The cost then to Calcutta may be reckoned—

	<i>Rs.</i>	<i>a.</i>	<i>p.</i>
Price in mart per maund	8	-	-
Charges to Mirzapore	-	15	7
Ditto from Mirzapore to Calcutta	-	1	4
<i>Rs.</i>	10	3	7

This gives a cost in Calcutta, taking the maund at 80 tolas, and the rupee at 1 *s.* 10 *d.*, of 2·733 pence per pound.

The Board cannot but observe, that in most of the discussions in England, touching both cotton and sugar, there appears a silent assumption that the produce of both these articles must be sent to England, and that there is little or no sale for either in this country.

At the time when the Company's investments were provided, and afterwards, when large shipments were made to China, the price of cotton in the Agra market used to be from 12 to 15 rupees per maund; and though there can be no doubt whatever that there would be a rapid extension of cultivation of cotton were the demand to increase, the price would so much rise by the export, as considerably to check the latter.

By the occupation of more land for cotton also, some grain production must be abandoned: The rise in the price of grains would tend to diminish the comparative profit of extending cotton culture.

12. The information supplied by the local officers in regard to weights and measurements gives throughout the area of land in acres. The maund is always one of 40 seers, and the seer is usually one of 80 tolabs. The exceptions in the latter case are the following :—

Muzuffnuggur	-	-	-	-	-	72 tolabs, 15 per cent.
Moradabad	-	-	-	-	-	100 „ 25 „
Bareilly, 125 lbs. troy.						
Furruckabad	-	-	-	-	-	96 „ 20 „
Etawah	-	-	-	-	-	102 „ 27½ „
Cawnpore	-	-	-	-	-	97 „ 21¼ „
Futtehpore	-	-	-	-	-	96 „ 20 „
Humeerpore	-	-	-	-	-	96 „ 20 „
Allahabad	-	-	-	-	-	100 „ 25 „
Calpee	-	-	-	-	-	96 „ 20 „

13. The cost of the article, and the rate of charges must, in these cases, be correspondingly reduced. In Allahabad, a further allowance is made of seven per cent. being given on the punseree (five seers) weight as for a wholesale transaction; but whether this allowance is made elsewhere on cotton does not appear.

I have, &c.

Sudder Board of Revenue, N. W. P.,
Agra, 27 February 1849.

(signed) W. Muir, Secretary.

(True copy)
(signed) C. Allen,
Offg. Secy. to Govt., N. W. P.

(No. 1½ in No. 1500 of 1849.)—(No. 219.)

From Sir *Theophilus Metcalfe*, Bart., Commissioner, Delhi, to *W. Muir*, Esq., Secretary
Sudder Board of Revenue, North Western Provinces, Agra.

Sir,

I HAVE the honour to acknowledge your docket, No. 49, dated 16 February, with enclosures from the Secretary to the Government, North Western Provinces, and from the Secretary to the Government of India, requiring replies to certain queries as to the extent to which India might be capable of supplying cotton in the event of an increased demand for it.

2. The replies of the several district officers of my division are herewith submitted.

3. As the information required has been supplied in various forms, I deem it necessary to annex a tabular statement showing at once the numeral answers to the several queries opposite each district. A reference to the reports of the district officers will show in detail all else that it may be deemed necessary to know.

4. It will be seen in the Table, that not quite the 107th part of the total area of the territory is under cotton cultivation, *i. e.*, about 112 square miles, equal to 71,852 acres, or 1,14,532 beegahs.

5. At the average rate per acre the quantity of cleaned cotton annually produced 130,817 maunds, or of uncleaned cotton 474,055 maunds.

6. In the event of an extended demand for the article, it will be seen from the Table that a probable increase of 15,952 acres in five of the six districts may be calculated on, or a total cultivated area, present and future, of 1,40,056 beegahs, or acres 87,535, yielding 159,970 maunds, equal to 12,797,600 lbs. of cleaned cotton, the value of which at the marts would not be under 10,03,145 rupees.

7. With reference to query 3, *viz.*, Expense of cleaning cotton by the “churkha, or by any other method,” none of the district officers have alluded to the practice that obtains in all large towns of cleaning cotton by the instrument known as the “dhunnee” bow-shaped-string, with thick cat-gut, and acted on by a small wooden mallet, with which the gut is struck, separating the cotton from all its crudities.

8. The use of this instrument is, however, confined to the cotton that has already been separated from its seed by the churkhee, and which is not deemed sufficiently purified to be at once converted into yarn.

9. The additional cost for a maund of cotton cleaned by the “dhunnee” is from Rs. 1. 10. to Rs. 2. 1.

10. In conclusion, I must express my opinion that the quantity of land reported under cultivation is rather under than over-rated. I believe this, because large exportations take place annually from the districts of Paneput, Hissar, Delhi, Rohtuck, and Goorgaon.

2ndly. The population of these districts exceeds a million and-a-half.

3dly. Now, taking the average quantity produced in these districts as per previous statement at 130,817 maunds or 10,465,360 lbs., the quantum per annum would be rather under 7 lbs. for the use of each individual if no exportation took place.

I.
Bengal and
North Western
Provinces.

But as the exportations amount to probably one-half of the whole produce, the rate per head of for individual consumption would be reduced to about 3 lbs., as per the first more simple process of separating the benowlee, or seed; but, taking into calculation the further reduction in weight caused by the after process of the dhunnee (say one-third) the quantity per head would not exceed 2 lbs., which could scarcely be sufficient for even the poorest peasant for the whole year.

Delhi Commissioner's Office,
28 June 1848.

I have, &c.
(signed) *T. Metcalfe*, Commissioner.

(True copy.)
(signed) *C. Allen*,
Offg. Secy. to Govt., N. W. P.

(No. 2 in No. 1500 of 1849.)—(No. 29 of 1848.)

From Captain *E. J. Robinson*, Superintendent Bhuttee Territory, to Sir *Theophilus Metcalfe*, Bart., Agent and Commissioner, Delhi.

Sir,

I HAVE the honour, in reply of your communication as per margin,* to state, for the information of Government, that no cotton is produced in this district, but is all imported from the eastward.

I have, &c.
(signed) *E. J. Robinson*,
Supt. Bhuttee Territory.

Collector's Office, Bhuttee Territory,
Camp Sirsa, 6 March 1848.

(True copy.)
(signed) *C. Allen*,
Offg. Secy. to Govt., N. W. P.

(No. 3 in No. 1500 of 1849.)—(No. 146 of 1848.)

From *N. H. E. Prowett*, Esq., Collector of Paneeput, to Sir *Theophilus Metcalfe*, Bart., Commissioner, Delhi.

Sir,

IN reply to your letter, noted marginally†, with annexures, I have the honour to report as follows:

Question 1.—The average rate per rupee of the pergunnahs in this district, is—

								<i>M.</i>	<i>s.</i>	<i>c.</i>
Purgunnah	Paneeput	Bangur	-	-	-	-	-	0	7	4
"	ditto	Khadir	-	-	-	-	-	0	5	12
"	Soneput	Bangur	-	-	-	-	-	0	7	8
"	ditto	Khadir	-	-	-	-	-	0	7	0
"	Kurnaul	-	-	-	-	-	-	0	6	0
Average								<i>M.</i>	0	6 11

The places where transactions in the sale of cleaned and uncleaned cotton produced in the district are carried on, are—

									Rate of Sale.
									<i>M.</i> <i>s.</i> <i>c.</i>
Paneeput	-	-	-	-	-	-	-	-	0 5 12 per rupee.
Soneput	-	-	-	-	-	-	-	-	0 6 0 "
Kurnaul	-	-	-	-	-	-	-	-	0 7 4 "
Naultha	-	-	-	-	-	-	-	-	0 7 8 "
Koorana	-	-	-	-	-	-	-	-	0 6 10 "
Kyeth	-	-	-	-	-	-	-	-	0 7 4 "
Buwara	-	-	-	-	-	-	-	-	0 7 8 "
Gudhee Bala	-	-	-	-	-	-	-	-	0 6 10 "
Mohana	-	-	-	-	-	-	-	-	0 6 10 "
Average								<i>M.</i>	0 6 10 "

Question

* No. 515, dated 28th February 1848, and No. 529, dated 12th idem, from Secretary to Government North Western Provinces, to Secretary Sudder Board of Revenue.

† No. 515, dated 28th February 1848, and No. 575, dated 6th March 1848.

Question 2.—The answer to this question is shown in the subjoined Table.

	With Advance.		Without Advance.		
	Cleaned.	Uncleaned.	Cleaned.	Uncleaned.	
	<i>M. s. c.</i>	<i>M. s. c.</i>	<i>M. s. c.</i>	<i>M. s. c.</i>	
Paneeput Bangur - - - -	0 8 0	0 21 6	0 7 2	0 24 0	} per rupee.
Ditto - Khadir - - - -	0 7 0	0 20 0	0 5 14	0 18 0	
Soneput Bangur - - - -	0 8 0	0 25 0	0 7 10	0 26 0	
Ditto - Khadir - - - -	0 8 0	0 24 0	0 7 14	0 22 0	
Kurnaul - - - -	0 7 0	0 20 0	0 6 4	0 18 1	
Average - - - -	0 7 9½	0 22 1	0 6 13	0 20 13	

Question 3.—Cotton is generally cleaned by the “churkee” in this district, and the average cost for cleaning is six annas per maund.

Question 4.—The nearest place for transporting cotton by water is the Jumna River on the east; but it is not usual for people to carry it in that direction; but when so carried, the average cost of carriage comes to 4 *a.* 5 *p.* per maund. Cotton produced in the district is mostly carried towards the north-west frontier by land.

Question 5.—The average produce per beegah, is 5 m. 21 s. 8½ c., and per acre, 8 m. 34 s. 6 c.

Question 6.—The quantity of land under cotton cultivation is about 23,712 beegahs, and in the event of demand, could be extended to about 26,725 beegahs.

The quantity of cotton produced in this district may be roughly calculated at 1,31,295 maunds, which is purchased by resident mahajuns, and not by foreigners.

The beegah is 3,025 English square yards. The maund is 40 seers. Theseer is 80 Company's rupees' weight. The rupee is the Company's rupee.

Zillah Paneeput Collector's Office,
2 May 1848.

I have, &c.
(signed) *N. Prowett*, Collector.

(True copy.)

(signed) *C. Allen*,
Offg. Secy. to Govt., N. W. P.

(No. 4, in No. 1500 of 1849.)—(No. 23, of 1848.)

From *C. Mackenzie*, Esq., Collector of Hissar, to Sir *Theophilus Metcalfe*, Bart.,
Commissioner, Delhi.

Sir,

I HAVE the honour to acknowledge the receipt of your letter, No. 515, dated the 28th February last, with its enclosures from the Board and Government on the subject of the cultivation and exportation of cotton, and to subjoin my answers to the several questions proposed by the Honourable the Court of Directors on the subject.

2. The cotton produced in this district, is partly consumed in this district* and partly transported to Umballa, Loodiana, and into the Puttiala and Bikaneer territories. It is seldom or never sent to Delhi, and the expense of conveyance to the sea is too great to admit of its exportation to other countries. A ready sale for it is always found at the marts of Rajghur and Bahadera, in the Bikaneer, and Bittinda and Senum in the Puttiala territory. It is sold by the growers to merchants in this district, chiefly to merchants in Hansi and Hissar, but also partly to bunyas in their own villages. The merchants in Hansi and Hissar transport it to the above marts.

Question. 1. What is the price of cotton freed from seed at the principal mart or marts in your district?

Answer. 1. At Hissar at 5 seers 8 chittacks per rupee. At Hansi at 6 seers, or 6 seers 4 chittacks per rupee.

2. At what price does the ryot sell his cotton cleaned or uncleaned, and with or without advance?

2. At Hissar the ryot sells uncleaned cotton at 18 seers, or 18 seers 8 chittacks per rupee, cleaned

* The quantity of cotton produced in this district is about 63,043 maunds of uncleaned, or 21,014 maunds of cleaned cotton yearly, of which about a half is consumed in this district.

I.

Bengal and
North Western
Provinces.

and cleaned cotton at 5 seers 12 chittocks per rupee. At Hansi the ryot sells uncleaned cotton at 19 seers or 20 seers per rupee, and cleaned cotton at 6 seers 8 chittacks and 6 seers 12 chittacks per rupee. At Hansi the ryots are sometimes paid in advance, and the price at which they sell uncleaned cotton is then 24 seers or 25 seers per rupee. At Hissar it has not been usual to make advances to the ryots.

3. What is the expense of cleaning cotton by the churka or foot roller, or by any other method which may be in use?

3. The churka is the implement always used for cleaning cotton, and the work is performed at an expense of eight annas per maund.

4. What are the expenses of conveying cotton to the nearest port for shipment?

4. The expense of conveying cotton by land from Hansi to Delhi is eight annas per maund, and from Delhi to the Sandheads, by water, Rs. 1. 10. per maund, in all Rs. 2. 2. per maund.

5. What is the average produce of cotton per beegah or acre?

5. The average produce may be estimated at 6 maunds 32 seers of uncleaned, or 2 maunds 10½ seers of cleaned cotton per acre.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried in the event of an increased demand?

6. There are 9,271 acres cultivated with cotton in this district, and an increase in the cultivation would depend on increased means of irrigation. The only other irrigated crop cultivated to any extent in this district is wheat, and notwithstanding an increased demand and higher price for cotton, the cultivation of wheat to the extent now cultivated would not, it is believed, be at once relinquished in favour of cotton. By the means which are now being taken for improving and extending the means of irrigation in the north of the district, a larger supply of cotton may certainly be anticipated, but the extent to which it may be cultivated in preference to other crops is very uncertain. I hope to add nearly 2,000 acres to the irrigated land in the north of the district during the present year.

7. The beegah, maund, and rupee used in answering these questions?

7. The beegah is 3,025 yards square, and one beegah 12 biswas are one acre. The maund is 42 seers, the seer weighing 80 Company's rupees. The rupee is the Company's rupee, and the Furruckabad rupee also is still in use.

I have, &c.

Collector's Office, Hissar,
13 April 1848.

(signed) C. Mackenzie, Collector.

(True copy.)

(signed) C. Allen,

Offg. Secy. to Govt., N. W. P.

(No. 5 in No. 1500 of 1849.)—(No. 89 of 1848.)

From A. A. Roberts, Esq., Officiating Collector of Delhi, to Sir Theophilus Metcalfe, Bart.,
Commissioner of Delhi.

Sir,

WITH reference to your letter, No. 515, dated the 28th February last, forwarding copy of a letter, No. 529, dated the 12th idem, from the Secretary to Government to the Secretary Sudder Board, and your docket, No. 575, dated 7th March, with enclosures, regarding the cultivation and exportation of cotton, I have the honour to submit the following replies to the questions contained in the Honourable Court's despatch.

Question. 1. What is the price of cotton freed from seed at the principal mart or marts in your district?

Answer. 1. There is no regular mart in the district of Delhi Proper. The cotton grown here is chiefly taken to Kharkhonda in the Rohtuck district, where there is a large mart. The clean cotton which finds its way into the city is sold at six and seven seers per Company's rupee. There are, however, two sorts of cotton, first, the "phullen kee rooe," or first quality, which the village buneas sell at 6½ or 6¾ seers per Company's rupee; and, secondly, the "samhoodhee," or mixed, which is sold at nearly eight seers per rupee.

2. At what price does the ryot sell his cotton, cleaned or uncleaned, with or without advances?

2. The ryots sell the cleaned cotton, first quality, at 6¼, 6½, and 7 seers per Company's rupee, and mixed at 8¼, 8½, and 9 seers ditto ditto. They sell kupass at two rupees per maund. The system of advances does not obtain here.

3. What is the expense of cleaning cotton by the churka or foot roller, or by any other method which may be in use?

3. There is no other method of cleaning cotton except by the churka. The cultivators usually

usually give the seed in payment of the expense of cleaning. Sometimes the cleaner takes two-thirds of the seed as his share and the proprietor one-third; sometimes the whole of the seed is taken by the cleaner. This depends upon the price of benowla (seed) in the market. The average price is one rupee per maund. If paid for in cash, eight annas are paid for cleaning one maund of kuppas, which yields 12 seers of clean cotton, and 28 seers of benowla. Buncas usually keep their own churkas, and thereby make a great profit. For instance,

One maund of kuppas, at 20 seers per rupee, costs	-	<i>Rs. a. p.</i>	2	-	-
The above yields 12 seers of clean cotton, which, at 6½					
seers per rupee, fetches	-		1	13	6
28 seers of beenowla is worth	-		-	11	-
		<i>Rs.</i>	2	8	6

This is to say, he gets *Rs.* 2. 8. 6. for that for which he paid but two rupees, and makes a clear profit of 25 per cent.

4. What are the expenses of conveying cotton to the nearest port for shipment?

4. Little or no cotton is exported from Delhi; but from the inquiries I have made, it would seem that cotton could be conveyed by water, in country boats, at from *Rs.* 2. 8. to 3 rupees per maund, including insurance from Delhi to Calcutta.

5. What is the average produce of cotton per beegah or acre?

5. In the northern pergunnah the average produce of clean cotton per acre of 4,840 square yards is said to be 1 m. 11 s. 8 c., or 103 lbs. In the southern pergunnah the average produce per acre is 0 m. 34 s. 14 c., or 69 lbs. The average of the two pergunnahs is 1 m. 3 s. 3 c., or 86 lbs; but I consider this to be below the mark. The averages have been framed upon the statements of the zemindars themselves, and the village accountants, who are ever prone to underrate the amount of produce.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried in the event of an increased demand?

6. I have taken the average of the last six years, and find that 3,321 acres of land are under cultivation with cotton. The cultivation might probably be doubled; but there are several obstacles to the extensive cultivation of cotton in this district. The lands may be divided into khudir, dabuur, nuhree, and baranee. In the two former, cotton is seldom cultivated, owing to the fear of inundation. It is not, moreover, profitable to cultivate it in the baranee lands, and therefore the principal cotton cultivation is to be met with in the canal villages, or in the bangur lands which have irrigation from wells. It, however, requires much labour, and is very precarious in its return, and the people generally prefer the cultivation of the esculent crops. The farming system which prevails to a considerable extent in this district, is another obstacle to the extensive cultivation of cotton. The farmers always collect by a fixed rate per beegah for cotton, and this rate is sometimes as high as *Rs.* 6. 7. per statute acre; but three rupees per beegah, or *Rs.* 4. 12. 9. per acre, is a common rate, and the crop must be good to yield any profit to the cultivators at this rate; but whether the crop be a full one or no the farmer will exact the prescribed rate.

I have, &c.

Delhi Collectorship, (signed) *A. A. Roberts*, Offg. Collector.
5 May 1848.

(True copy.)
(signed) *C. Allen*,
Offg. Secy. to Govt. N. W. P.

(No. 6 in No. 1500 of 1849).—(No. 186 of 1848.)

From *E. T. Colvin*, Esq., Officiating Deputy Collector of Rohtuck, to Sir *Theophilus Metcalfe*, Bart., Commissioner Delhi.

Sir,

I HAVE the honour to acknowledge your docket, No. 575, of the 6th of March last, and with reference to the questions contained in the extract of the despatch of the Honourable Court, I beg to reply,

1. That at Bhewanee, which is the principal mart in this district, the average price of clean cotton is six seers two chittacks per rupee. At Rohtuck, Kher Khonda, and Gohana, it is a little cheaper, but the reason is, that these places are situated on the canal. The produce in the neighbourhood of Bhewanee is small.

2. It is not usual to give advances upon cotton cultivation. The ryot sells his produce at about 6 seers 12 chittacks cleaned. Where by chance an advance may have been given, it makes the articles from a quarter to half a seer cheaper.

3. The churkas universally used to clean cotton. When the proprietor of uncleaned cotton

I.

Bengal and
North Western
Provinces.

cotton wishes to clean it, if the quantity is too great to be done by himself or the members of his household, he employs others to do it. The men are rarely (though they are sometimes) paid in money. Out of a maund of uncleared cotton about 10 seers of clean will be obtained, and 30 seers of benowla, or seed. Half of this latter is the perquisite of the cleaner: its value may be six or seven annas.

4. To convey cotton from hence to Calcutta costs about Rs. 2. 7. per maund. It is usually taken from hence to Agra by land, and from that place to Calcutta by water.

5. The produce per beegah is very uncertain, depending entirely upon the nature of the rainy season. If that is favourable, and rain abundant, two maunds per beegah may be looked for, or even more; if the rains fail, a maund and a half is more than the average.

6. The land actually under cotton cultivation in this district in the Khurreef is about one-fiftieth part of the whole area; but this might be increased to almost any extent were the demand sufficient, and I believe that the area now cultivated might be made to produce much more were a proper system of sowing and tending substituted for the present most slovenly one.

Rohtuck Division, Collector's Office,
18 May 1848.

I have, &c.
(signed) *Edward Colvin*,
Officiating Deputy Collector.

(True copy).
(signed) C. Allen,
Offg. Secy. to Govt., N. W. P.

(No. 7 in No. 1500 of 1849.)—(No. 197 of 1848.)

From *E. T. Colvin*, Esq., Officiating Deputy Collector, Rohtuck, to Sir *Theophilus Metcalfe*, Commissioner, Delhi.

Sir,

I HAVE the honour to acknowledge the receipt of your letter, No. 1275, dated the 23d instant.

With regard to the difference noticed in your 1st para., I have to state, that almost every crop of cotton will give a different proportion of seed and clean cotton. I think 12 seers of the latter in the maund, rather above the average. I cannot account for the difference in price in cleaning kuppas. My information was obtained from the principal traders in Bhewanee and other marts.

2. With reference to your 2d para. my calculation comprised every thing, *beema** and all. The actual carriage is about Rs. 1. 14. per maund from Bhewanee.

3. The average of good and bad seasons may be about one maund and three-fourths.

4. About 23,284 beegahs of land are under cotton cultivation, and I should think 30,000 or more might be brought under cultivation in the event of an increased demand.

Rohtuck Division, Collector's Office,
31 May 1848.

I have, &c.
(signed) *Edward Colvin*,
Officiating Deputy Collector.

(True copy).
(signed) C. Allen,
Offg. Secy. to Govt., N. W. P.

(No. 8 in No. 1500 of 1849.)—(No. 93 of 1848.)

From *W. De Hayne Routh*, Esq., Collector of Gurgaon, to Sir *Theophilus Metcalfe*, Bart., Commissioner, Delhi.

Sir,

WITH reference to your letters and their enclosures as per margin,† I have the honour to forward herewith a statement embodying all the points of information required by the Court's despatch, No. 14., dated 10 November 1847, regarding the supply of cotton in this district.

Zillah Gurgaon Collectorship,
15 June 1848.

I have, &c.
(signed) *W. De H. Routh*, Collector.

(True copy).
(signed) C. Allen,
Offg. Secy. to Govt., N. W. P.

* Insurance.

† Commissioner's letter, No. 515, dated 28th February 1848. Secretary to Government, No. 529, dated 12th February 1848. Commissioner's socket, No. 575, dated 6th March 1848. Secretary to Government of India, No. 75, dated 15d January 1848. Honourable Court of Directors, No. 14, dated 10th November 1847.

(No. 9 in No. 1500 of 1849.)

D I S T R I C T.	Query 1.	Query 2.				Query 3.	Query 4.	Query 5.		Query 6.		Query 7.
	Price of Cotton, freed from Seed, at the principal Marts in the District, per Maund.	Price at which the Ryot sells his Cotton, Cleaned or Uncleaned, and with or without Advances, per Maund.		Without Advances.		Expense of Cleaning Cotton by the Churka, per Maund.	Expense of Conveying Cotton to the nearest Port for Shipment, per Maund.	Average Produce of Cotton, per Acre.		Quantity of Land under Cultivation with Cotton, and Extent to which it is probable Cultivation could be carried, in the event of increased Demands.	The Maund, Seer, Rupee, and Beegah, used in these Calculations.	
		With Advances.	Without Advances.	Cleaned.	Uncleaned.			Cleaned.	Uncleaned.			
	R. a. p.	R. a. p.	R. a. p.	R. a. p.	R. a. p.	R. a. p.	R. a. p.	M. s. c.	M. s. c.	Acres.	Acres.	
Bhutteenah	- - -	- - -	- - -	- - -	- - -	None grown.	- - -	- - -	- - -	- - -	- - -	Maund - 40 Seers.
Paneeput	5 15 8	5 4 7	1 14 -	5 13 11	1 14 9	- 6 -	- - -	- - -	8 34 2	14,820	16,703	Seer - 80 Co.'s Rs.
Hissar	6 13 -	- - -	1 10 7	6 5 4	2 1 11	- 8 -	2 2 -	- - -	5 35 3	9,271	11,271	Beegah - 3,025.
Delhi	6 2 5	- - -	- - -	6 1 6	2 - -	- 8 -	2 12 -	1 3 1	- - -	3,321	6,642	Rupee - Co.'s Rs.
Rohtuck	6 8 5	5 9 10	- - -	6 12 -	- - -	- 7 -	2 7 -	2 32 0	- - -	14,552	18,750	
Gurgaon	5 14 2	5 8 -	1 7 9	5 13 1	1 15 5	1 2 11	2 12 3	1 23 0	4 39 5	29,617	35,418	
	6 4 4	5 7 8	1 10 5	6 2 9	2 - -	- 9 7	3 5 9	1 19 6	6 22 14	71,582	87,535	

Delhi, Commissioner's Office, }
28 June 1848.

(True copy.)

(signed) C. Allen,
Offg. Secy. to Govt., N. W. P.(signed) T. Metcalfe,
Commissioner.I.
Bengal and
North Western
Provinces.

(No. 10 in No. 1500 of 1849.)

STATEMENT of the Price and Supply of Cotton in the District of Gurgaon.

No.	TEHSEEL DIVISIONS.	Price of Cotton, freed from Seed, at the Principal Marts in the District, per Maund.	Price at which the Ryot sells his Cotton, Cleaned or Uncleaned, and with or without Advances, per Maund.				Expense of Cleaning Cotton by the Churka, per Maund.	Expense of Conveying Cotton to the nearest Port for Shipment, per Maund.	Average Produce of Cotton, per Beegah.		Quantity of Land under Cultivation with Cotton ; and Extent to which it is probable that Cultivation would be carried, in the Event of an increased Demand.
			With Advances.		Without Advances.				Cleaned.	Uncleaned.	
			Cleaned.	Uncleaned.	Cleaned.	Uncleaned.					
			M. s. c.	M. s. c.	M. s. c.	M. s. c.					
1	Poonahana -	R. a. p. - 5 11 6	R. a. p. 5 9 3	R. a. p. 1 12 3	R. a. p. 5 11 6	R. a. p. 1 14 6	} 1 - -	R. a. p. 2 12 -	0 33 4	2 20 0	18,744 beegahs. Cultivation could not be extended.
	Hodul -	- 5 12 8	5 10 3	1 13 3	5 12 6	1 15 6		-			
2	Ferozepore -	- 5 14 -	1 12 -	5 8 -	1 13 -	1 - -	2 13 -	1 13 -	1 0 0	3 0 0	3,000 beegahs. Cultivation could probably be extended to 5,000 beegahs.
3	Noh -	- 5 12 -	5 8 -	1 13 3	5 10 -	1 14 -	- 12 -	2 10 3	0 30 0	2 10 0	8,000 beegahs. Cultivation could probably be extended to 8,500 or 8,700 beegahs.
4	Rewaree -	- 7 4 9	The system of advances does not obtain in this pergunnah.				2 4 -	2 14 4	1 0 0	3 0 0	1,432 beegahs. Cultivation could probably be extended to 2,148 beegahs.
5	Pulwul -	- 5 5 4	5 - -	1 10 -	5 4 -	1 11 4	1 - -	2 12 -	3 0 0	9 0 0	9,482 beegahs. Cultivation could probably be extended to 11,862 beegahs.
6	Jharsah -	- 6 6 5	5 14 -	1 15 -	6 - -	2 - -	1 10 6	- - -	0 30 0	2 20 0	6,730 beegahs. Cultivation could probably be extended to 8,225 beegahs.
	Sonah -	- 5 10 8	5 6 8	1 14 6	5 9 3	2 - -	1 - -	The cotton produced in these pergun- nahs is not ex- ported.	0 25 0	2 0 0	
	Dhwj -	- 6 - -	5 12 -	1 14 9	5 14 6	2 - -	1 - -		0 25 0	2 0 0	
	Toorw -	- 5 12 -	5 8 -	1 14 -	5 10 8	2 - -	1 - -		0 18 0	1 20 0	

Remarks.—The cotton of this district is purchased by resident and non-resident traders, chiefly for the Calcutta market. The cost of conveying cotton to the nearest port for shipment is calculated to Calcutta, and includes all charges on account of packing, carriage, insurance, custom dues, &c. The average produce of cotton per beegah in the different tehseel divisions varies considerably; and in the case of Pulwul is so much in excess of the other averages, that there is ground for doubting the correctness of the statement. The soil of pergunnah Pulwul is well adapted to cotton cultivation, and the average produce is very much larger there than elsewhere; but from personal inquiries from zemindars and others well acquainted with these matters, I have every reason to believe that the estimate of the tehseeldar is much exaggerated. The extent of present and probable cultivation, on the other hand, is, I have no doubt, much under-rated, particularly in pergunnah Pulwul, and must only be taken as an approximation to the truth. The maund used in this cultivation is of 40 seers, the seer weighing 80 Co.'s Rs.; and the beegah of 3,025 square yards.

Zillah Gurgaon Collectorship, }
15 June 1848.

(True copy.)

(signed) C. Allen,

W. De Hayne Routh,
Collector.

(No. 11, in No. 1,500 of 1849.) (No. 80 of 1848.)

From *A. Ross*, Esq., Superintendent of Deyrah Dhoon, to *D. B. Morrieson*, Esq.,
Commissioner, Division of Meerut.

Sir,

I HAVE the honour to acknowledge the receipt of your circular, No. 11, of the 7th March, with enclosures, and in reply to state that as no cotton is grown in this district for purposes of trade, it is out of my power to answer the queries framed by the Honourable Court of Directors.

2. I should be inclined to think, however, that neither the soil nor climate of the Dhoon was suited to the cultivation of the cotton plant.

I have, &c.

(signed) *A. Ross*,
Superintendent.

Deyrah Dhoon, Superintendent's Office,
24 May 1848.

(True copy.)

(signed) *C. Allen*,
Officiating Secy. to Govt. N. W. P.

(No. 12, in No. 1500 of 1849.) (No. 219 of 1848.)

From *F. B. Davidson*, Esq., Collector of Saharunpore, to *D. B. Morrieson*, Esq.,
Commissioner of the First or Meerut Division.

Sir,

WITH reference to your circular of the 7th March last, No. 11, I have the honour to submit the following answers to the queries of the Honourable the Court of Directors, No. 14, of the 10th November last.

Query 1. What is the price of cotton, freed from seed, at the principal mart or marts in your district?

Answer. The average price of cotton, freed from seed, at the markets of Saharunpore, Nakoor, Ambehta, Gungo, Chilkanah, Lukhnowtee, Teetron, Sovltanpore, Sirsawah Roorkee, Bhugwanpoor, Sundhouree, Jowullapoor, Kunkhul, and Munglour is *Rs. 7. 7.* per maund, and at those of Deobund and Rampoor *Rs. 7. 4.* per maund.

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?

The ryot of this district sells his cotton cleaned at the rate per maund of *Rs. 7. 5.* with advance, and at *Rs. 7. 5. 9½.* without advance, and uncleaned cotton is sold with advance thus: first sort, at *Rs. 2. 3. 8½.*; second sort, *Rs. 2. 0. 7.*; third sort, at *Rs. 1. 13. 7½.* per maund; and without advance, first sort, at *Rs. 2. 6. 2½.*; second sort, at *Rs. 2. 2. 2½.*; third sort, at *Rs. 1. 15. 3.* per maund.

3. What is the expense of cleaning cotton by the churkhee or foot-roller, or by any other method which may be in use?

The cotton throughout the district of Saharunpore is cleaned by only one method, the churkhee, and the expense of cleaning in the town of Saharunpore is 12 annas per maund; in the other towns in this district the custom is to give the persons who clean it the seed; and at Nukoor, if they be dissatisfied with the seed, they receive an equal weight of wheat.

4. What are the expenses of conveying cotton to the nearest port for shipment?

Six rupees per maund to Calcutta; but the trade is not in that direction, but to the westward.

5. What is the average produce of cotton per beegah or acre?

The average produce of cotton in the district of Saharunpore is 5 maunds 35 seers 10½ chittacks uncleaned per acre.

I.
Bengal and
North Western
Provinces.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried in the event of an increased demand?

The quantity of land under cultivation with cotton is, in this district, at present 30,637 acres, and in the event of increased prices 8,789 acres: more might possibly be brought under tillage of cotton; but as the prices are high, and not likely to be enhanced, this is not to be expected.

I have, &c.

(signed) *F. B. Davidson*,
Collector.

Saharunpore Collectorship,
12 June 1848.

Note.—The maund indicated above is of 80 tolahs per seer, or the Government weight; the rupee, the Company's rupee; the acre, the English statute acre of 4,848 square yards.

(True copy.)

(signed) *C. Allen*,
Officiating Secy. to Govt. N. W. P.

(No. 13, in No. 1,500 of 1849.)

Question 1. What is the price of cotton, freed from seed, at the principal mart or marts in your district?

Answer. 5 seers 4 chittacks per Furruckabad rupee (the seer equalling 92 rupees).

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?

The ryot sells his cleaned cotton at 5 seers 8 chittacks the rupee; and, uncleaned, at 19 seers the rupee, without advance.

3. What is the expense of cleaning cotton by the churkee or foot roller, or by any other method which may be in use?

It is customary to allow the person by whom the cotton is cleaned to appropriate the seed to his use in compensation of his labour. A maund of uncleaned cotton usually yields 12 seers of clean cotton, and 28 seers of seed. The value of the seed is about 10 *a.* 6 *p.* There is no other method of cleaning cotton than by the churkee.

4. What are the expenses of conveying cotton to the nearest port for shipment?

There is no port to which cotton is conveyed from this district for shipment. It is almost entirely disposed of in the neighbouring districts of Furruckabad and Mynpoorie.

5. What is the average produce of cotton per beegah or acre?

The average produce of cotton per statute acre is 5 maunds 4 seers 1 chittack.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried in the event of an increased demand?

The quantity of land under cultivation in this district is 15,601 statute acres. In the event of an increased demand the cultivation of it might probably extend to 1,500 or 2,000 acres more.

17 May 1848.

(signed) *H. W. Deane*,
Collector Moozuffurnuggur.

(True copy.)

(signed) *C. Allen*,
Officiating Secy. to Govt. N. W. P.

(No. 14, in No. 1500 of 1849.)

STATEMENT of Particulars regarding the Produce of COTTON in the Meerut District, in reply to the Queries framed by the Court of Directors.

1. NAME of DISTRICT.	2. Price of Cotton, freed from Seed, at the principal Marts per Rupee.	3. Price of Cotton, Cleaned or Uncleaned, sold by the Ryots with or without Advances.				4. Expense and Method of Cleaning Cotton.	
		Cleaned per Rupee.	Uncleaned per Rupee.	With Advance.	Without Advance.	Expense per Maund.	Method.
	M. s. c.	s. c.	s. c.		s. c.	Rs. a. p.	
Meerut - - - -	0 6 5	6 7	21 12	It is not cus- tomary in this district to advance on cotton.	6 7	8 9 9	Churkhee.

NAME of DISTRICT.	5. Expenses of Conveying Cotton to the nearest Port for Shipment.	6. Average Produce of Cotton per Beegah, or Acre.		7. Quantity of Land under cultivation with Cotton, and probable Extent to which cultivation could be carried.		8. Definition of the Beegah, Maund, and Rupee, used in answering these Questions.		
		Per Beegah Puckah.	Per Acre.	Quantity under Cultivation.	Probable Extent.	Beegah.	Maund.	Rupee.
		M. s. c.	M. s. c.	Bgs. bis.	Bgs.			
Meerut - - -	No shipment -	1 38 10	3 6 4	30,984 15	40,000	3,025 sq. yds.	40 seers of 80 toahs each.	Co's Rupee of 1 tola weight.

Zillah Meerut Collector's Office, }
4 August 1848.(True copy.)
(signed) C. Allen,
Officiating Secretary to Government, North Western Provinces.(signed) C. Gubbins,
Collector.

(No. 15, in No. 1500 of 1849.)

MEMORANDUM.

1.	2.	3.	4.	5.	6.
What is the Price of Cotton, freed from Seed, at the princi- pal Mart or Marts in your District?	At what Price does the Ryot sell his Cotton, cleaned or uncleaned, and with or without advances?	What is the Expense of cleaning Cotton, by the Churka, or Foot Roller, or by any other method which may be in use?	What are the Ex- penses of convey- ing Cotton to the nearest Port for Shipment?	What is the Average Produce of Cotton per Beegah or Acre?	What is the quan- tity of Land under cultivation with Cotton; to what extent is it probable that the cultivation could be carried in the event of an increased demand?
M. s. c. Per rupee - 0 6 4	M. s. c. Per rupee, clean- ed, without ad- vance - - 0 6 12 Per rupee, in- cluding seed, without advance 0 20 8 Per rupee, clean- ed, with advance 0 7 8 Per rupee, in- cluding seed, with advance 0 24 0	M. s. c. Per rupee 1 0 0	-- Cotton could only be sent for shipment to Calcutta; the cost of conveyance from this district would be to the Ghat, at Anoop- shuhur, distant 24 miles, 1½ anna per maund per 16 miles, and from thence to Calcutta, at 12 annas the maund.	M. s. c. Per acre - 2 33 0	A. r. p. 14,505 - -

Remarks.—The cultivation would greatly increase provided wells were built; but there is no doubt, on the completion of the canal, cotton will be a commodity sown to a great extent in all districts through which the canal will pass.Boolundshuhur Collectorship, }
7 June 1848.(True copy.)
(signed) C. Allen,
Officiating Secretary to Government, North Western Provinces.(signed) A. W. C. Plowden,
Collector.

I.
Bengal and
North Western
Provinces.

(No. 16, in No. 1500 of 1849.) (No. 175).

From *G. Blunt*, Esq., Collector of Allyghur, to *D. B. Morrieson*, Esq.,
Commissioner of the Meerut Division.

Sir,

1. IN reply to your Circular, No. 11 of the 7th March, and its enclosures, I have the honour to submit the following report on the cultivation of cotton in this district.

2. On the receipt of your letter, I issued orders to the several tehseeldars and to the large landholders and merchants engaged in the cotton trade, to supply the information called for by the Honourable the Court of Directors. The result of these inquiries are given at length in the replies to the questions proposed by the Court. From the reply to Question 6 you will perceive, that the cultivation of cotton is carried on in only 69,050 acres out of 921,717 acres, comprising the cultivated area of this district, and I have every reason to believe that if a steady demand for the article were established, the cultivation might be greatly extended; the quality used in the district in the manufacture of thread and coarse cloths is estimated at about one-sixth of the annual produce, the rest is exported and sent to Mirzapore; the market price at the Dusserah at the several marts in this district being regulated by the demand in the Mirzapore market. The failure of the large houses in Calcutta has forced the closing of the greater part of the indigo concerns in this district, and a large quantity of land, which used to be laid down in indigo, is now employed in the raising of less remunerating crops. A great part of these lands would be immediately sown with cotton, if a steady demand were established. Cotton in an average rainy season is a remunerating crop, requires only twice weeding, and the harvest is early. The great fluctuation in the price in the Mirzapore market, which mainly depends on the China trade, renders the demand always unsteady, and the merchants who have sent cotton from this to Mirzapore this season, have hardly recovered their outlay. I have been unable to procure any sufficient data of the quantity of this district's cotton sent to Mirzapore, as a considerable quantity is sent from Ghats in the Boolundshuhur district, *viâ* the Ganges, and also *viâ* the Jumna from Ghats in the vicinity of Agra.

Query. 1. What is the price of cotton, freed from seed, at the principal mart or marts in your district?

The following Table will show the prices of cotton, freed from seed, in the undermentioned tehseeldarees in this district:

		Tehseeldares.	Price of Cotton, freed from Seed, per Maund.
			<i>Rs. a. p.</i>
Cotton Mart	-	Coel	7 4 -
Cotton Mart	-	Attrowlee	7 1 4
		Akerabad	7 1 4
		Eglass	6 2 6
		Khyr	6 8 -
		Tuppuhl	6 8 -
Cotton Mart	-	Hattrass	7 - -
		Secundra Rao	8 - -
		Average price per Maund	6 15 1½

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advance?

The prices at which the ryot sells his cotton, cleaned or uncleaned, and with or without advances in the several tehseeldarees, are as follow:

TEHSEELDAREES.	With Advance.		Without Advance.	
	Cotton Cleaned.	Cotton Uncleaned.	Cotton Cleaned.	Cotton Uncleaned.
	<i>Rs. a. p.</i> <i>per maund.</i>	<i>Rs. a. p.</i> <i>per maund.</i>	<i>Rs. a. p.</i> <i>per maund.</i>	<i>Rs. a. p.</i> <i>per maund.</i>
Coel - - - - -	6 8 -	1 12 -	7 - -	1 14 -
Attrowlee - - - - -	6 5 4	1 12 4	6 15 8	2 - -
Akherabad - - - - -	6 12 9	1 15 6	7 - 6	2 3 -
Eglass - - - - -	{ System of advance not in } force - - - - -		6 10 -	2 4 6
Khyr - - - - -	ditto - -	ditto - -	6 8 -	2 - -
Tuppuhl - - - - -	6 - -	2 - -	6 8 -	2 4 -
Hattrass - - - - -	{ System of advance not in } force - - - - -		7 - -	2 10 -
Secundra Rao - - - - -	6 8 -	2 - -	6 12 -	2 4 -
Average price per Maund - - -	6 6 9	1 14 4	6 12 9	2 2 11

3. What is the expense of cleaning cotton by the churka or foot rollers, or by any other method which may be in use?

The only instrument used for cleaning cotton in this district is the common churka, and it is the general custom to give the benowla or cotton seed in exchange for the labour of extracting it; the maund of kupas or uncleaned cotton on an average yields 27 seers of seed and 13 seers of cleaned cotton: the value of the 27 seers of seed is about seven annas, and this amount may be assumed as the cost of cleaning a maund of kupas.

4. What are the expenses of conveying cotton to the nearest port for shipment?

As stated above, the trade in cotton, the produce of this district, is only to Mirzapore, none of the traders sending their goods further than that mart. The average expense of transit, including bags, land and water carriage, insurance, &c., is *Re. 1. 14 a.* per maund.

5. What is the average produce of cotton per beegah or acre?

The average produce of cotton (uncleaned or kupas) per beegah and per acre, is as follows:

	<i>Md.</i>	<i>s.</i>	<i>c.</i>
Average per beegah - - - - -	-	1	36 4
Average per acre - - - - -	-	3	13 7

The amount of cleaned cotton is about one-third of the above.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried in the event of an increased demand?

The following table will show the extent of land, both in beegahs and acres, under cultivation with cotton:

TEHSEELDAREES.	Extent of Land in Cultivation.	
	In Beegahs.	In Acres.
Coel - - - - -	19,000	10,820
Attrowlee - - - - -	7,000	3,986
Akherabad - - - - -	9,800	5,581 $\frac{1}{2}$
Eglass - - - - -	28,879	16,444 $\frac{1}{2}$
Khyr - - - - -	12,000	6,834
Tuppuhl - - - - -	6,000	3,417
Hattrass - - - - -	22,494	12,810 $\frac{1}{2}$
Secundra Rao - - - - -	16,080	9,157 $\frac{1}{2}$
TOTAL - - - - -	121,253	69,050

I.
Bengal and
North Western
Provinces.

It is impossible to state to what extent cotton might be cultivated if a steady increased demand sprung up; the only limit to its cultivation would be the quantity of land fitted for its culture, and its market price compared with that of other description of produce.

N. B.—The beegah, maund, and rupee used in answering these questions must be defined.

A beegah here is of 2,756 $\frac{1}{2}$ square yards.

One beegah and 15 biswas (fractions omitted) is equal to an acre.

A maund is of 40 seers of 80 tolaks to a seer, according to Regulation VII. of 1833.

The rupee used in answering these queries is the Company's rupee.

3d. In conclusion, I beg to remark, that there is perhaps no district in these provinces in which there exist so many facilities for introducing experiments in the culture of cotton. A very large part of the soil is suited to its culture; there exists in every pergunnah, nearly, large and influential landholders, who would give their attention to the subject, and who would employ a portion of their seer lands for the purpose; and irrigation by wells is so general as to render crops of every description comparatively safe should the periodical rains fail.

I have, &c.
(signed) *George Blunt*,
Collector.

Allyghur Collector's Office,
27 May 1848.

(True copy.)
(signed) C. Allen,
Officiating Sec. to the Government of N. W. Provinces.

(No. 17, in No. 1500 of 1849.) (No. 38).

From *G. T. Lushington*, Esq., Commissioner of Kumaon, to *William Muir*, Esq., Secretary to the Sudder Board of Revenue, North West Provinces, Agra.

Sir,

In reply to your docket, No. 8, dated the 10th February last, I have the honour to transmit herewith the accompanying reports on the production of cotton in the province of Kumaon, received from the senior assistants of Kumaon Proper and Gurhwal.

I have, &c.
(signed) *G. T. Lushington*,
Commissioner.

Kumaon Commissioner's Office, Almora,
25 May 1848.

(True copy.)
(signed) C. Allen,
Officiating Sec. to the Government of the N. W. Provinces.

(No. 18, in No. 1500 of 1849.) (No. 74).

From *J. H. Batten*, Esq., Senior Assistant Commissioner, Kumaon Proper, to *G. T. Lushington*, Esq., Commissioner of Kumaon; dated Nynnee Tal, 3 May 1848.

Sir,

Revenue.

I have the honour to forward my replies for zillah Kumaon, to the queries of the Honourable Court of Directors, on the subject of the growth of cotton in India, contained in the correspondence forwarded from your office on the 2d March last.

I have, &c.
(signed) *J. H. Batten*,
Sen. Assist. Commissioner.

Kumaon Assistant Commissioner's Office,
3 May 1848.

Question 1. WHAT is the price of cotton, freed from seed, at the principal mart or marts in your district?

Reply. From two to three seers per rupee.

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?

No paharee ryot is in the habit of selling cotton.

3. What is the expense of cleaning cotton by the churka or foot rollers, or by any other method which may be in use?

None. Every one cleans cotton, if required for himself, by his own labour.

4. What

4. What are the expenses of conveying cotton to the nearest port for shipment?
No cotton is exported.

5. What is the average produce of cotton per beegah or acre?
Unknown.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried in the event of an increased demand?

In the whole of Kumaon Proper not more than 260 acres are calculated to be under cotton cultivation. In fact, cotton is more like a garden produce, planted for individual and household use, than a source of agricultural profit. The cotton plant, however, might be largely grown in the Kota Doon and the Bhabur, where it is not now even introduced. The land within the valleys of the hills themselves is all required for the production of food.

(signed) *J. H. Batten*,
Sen. Assist. Commissioner.

(True copy.)

(signed) *C. Allen*,
Officiating Sec. to the Government of the N. W. Provinces.

(No. 19, in No. 1500 of 1849.) (No. 7.)

From Captain *H. Ramsay*, Senior Assistant Commissioner of Kumaon, to *G. T. Lushington*, Esq., Commissioner in Kumaon.

Sir,

I HAVE the honour to acknowledge the receipt of copy of a letter, No. 529 of 1848, from the Secretary to Government N. W. Provinces, to the address of the Secretary Sudder Board of Revenue, with enclosure, and in reply to state that no cotton grown in this district is offered for sale, therefore the questions in the Honourable the Court of Directors' letter, No. 14, dated 10th November last, require no replies from me.

I have, &c.
(signed) *H. Ramsay*,
Sen. Assist. Commissioner.

Gurhwal Senior Assistant's Office,
28 March 1848.

(True copy.)

(signed) *C. Allen*,
Officiating Sec. to the Government, N. W. Provinces.

(No. 20, in No. 1500 of 1849.) (No. 363 A. of 1848.)

From *Henry Pidcock*, Esq., Commissioner of Rohilkund, to the Sudder Board of Revenue, N. W. Provinces, Agra.

Gentlemen,

THE despatch of the Honourable the Court of Directors, No. 14, dated 10th November last, received with your Board's docket, No. 63, dated 18 February, and the memorandum regarding the cultivation of cotton in India by Dr. Royle having been forwarded to the collectors of this division, I have the honour herewith to transmit their replies to the queries proposed by the Court.

Question 1. What is the price of cotton, freed from seed, at the principal mart or marts in your district?

Answer. The average price of such cotton, soon after it has been gathered, may be safely estimated at 2 *d.* per lb. avoirdupois, for the whole division of Rohilkund.

In the Bijour return it is set down 11 lbs. per rupee.

Moradabad ditto, at 10 $\frac{1}{2}$ rupees per maund of 100 sicca weight to the seer.

In the Budaon return at 5 seers of 80 tolahs each per rupee.

Bareilly ditto, at 10 rupees per maund of 125 lbs. troy.

Shahjehanpore, *Rs.* 10. 13. 9. per maund of 111 rupees to the seer weight.

The highest price is estimated at 2 $\frac{1}{4}$ *d.* per lb. in Shahjehanpore; the lowest, at 1 $\frac{3}{4}$ *d.* per lb. in Moradabad.

At Chundowsee, zillah Moradabad, it would naturally be cheaper, that being the great cotton mart in this division, and it is exported thence to Bareilly and Shahjehanpore by land.

At the present time the best cotton of last year is selling in the city of Bareilly at the rate of 3 $\frac{1}{2}$ seers of 100 sicca weight per rupee. A month hence, when the new cotton has

been brought to market, the best will sell for four seers per rupee, or $2\frac{1}{2}d.$ per lb. avoirdupois; but the best is impure, and apparently unfitted for the English market.

2. At what price does the ryut sell his cotton, cleaned or uncleaned, and with or without advances?

In the Bijnour district the ryut is said to sell his cotton, cleaned or uncleaned, at the rate of 12 lbs. per rupee, or $1\frac{5}{8}d.$ per lb. This is not, I think, the case. The seed pays for the cost of cleaning.

In the Moradabad district the ryut sells his cotton uncleaned. If the price of cleaned cotton be Rs. 7. 8. per maund, cotton with the seed in it would fetch Rs. 2. 8. per maund, or one-third only. No advances are now taken by Assamees. The ryut prices of cotton have not been given.

In the Budoan district the ryut seldom takes advances; he sells his uncleaned cotton at the rate of 20 seers, his cleaned cotton at five seers 80 sicca weight per rupee.

In the Bareilly district the ryut sells his cotton, if not freed from the seed, at Rs. 2. 8. per maund; but he usually sells it, when cleaned, at a rate varying little from the city current price. He takes no advances.

In the Shahjehanpore district, on the contrary, the ryut is said never to sell his cotton in a cleaned state, but always raw; the price may be estimated at Rs. 2. 8. 6. per maund. No advances are taken by the cultivator.

It appears from these returns that the cotton is generally sold by the producer with the seed in it. Its price varies but little from the current rates at the time existing in the chief marts. The reason assigned for its being sold in its raw state is the want of leisure; the season at which the cotton ripens being a very busy one for the cultivator. He seldom takes advances because he grows chiefly for the consumption of his own family, and because under the existing revenue system he has time to dispose of his produce before he is called upon to pay rent.

3. What is the expense of cleaning cotton by the churka or foot roller, or by any other method which may be in use?

In the Bijnour district it is said to be Rs. 2. 2. per 100 lbs. avoirdupois, or nearly one halfpenny per lb.

In the Moradabad district one rupee per maund of 100 rupees per seer = 103 lbs. or somewhat less than one farthing per lb. Out of one maund of raw cotton, from 12 to 15 seers of cleaned cotton are procured.

In the Budoan district one rupee for five maunds is the charge stated. The cleaned cotton is about one-fourth of the produce with the seed in it.

In the Bareilly district cotton seed is given in return for labour. If in grain, nine or 10 pies per day, and one anna per day if four seers of cotton be cleaned.

In Shahjehanpore the cotton cleaner, using his own churkee, gets all the seed he extracts, and a quantity of coarse grain equal in weight to the cotton cleaned. If the churkee belongs to the owner of the cotton, the cleaner only gets the cotton seed.

The cost of cleaning may be said to vary from one farthing to one halfpenny per lb. avoirdupois. The churkee is the only machine used for separating the seed from the cotton. It is a rude contrivance, but it costs little; can be made and mended by the most ignorant carpenter, and in the hands of the most unskilful, the young and the old of either sex, effectually separates the seed, although it does not free the cotton from impurities.

4. What are the expenses of conveying the cotton to the nearest port for shipment?

The information on this head is imperfect, as regards the Bijnour return. Those from Bareilly and Shahjehanpore contain none. The collector of Moradabad calculates altogether that the charge of conveying cotton from his largest mart, Chundousee, to Calcutta, the nearest port for shipment, a distance by water of at least 1,200 miles, would be about Rs. 13. 5. per cent. on the value of the cotton shipped. The Budaon calculation would not differ much from this if insurance be added.

5. What is the average produce of cotton per beegah or acre?

The beegah varies much in each district. The acre has, therefore, been used in this calculation.

The returns from the different districts vary very much, and so indeed do the several subdivisions of each district. The Bijnour return appears to have been prepared with much care; in it the highest and the lowest average, and the general average produce of clean cotton per acre in each pergunnah is given. The highest in pergunnah Nujeebabad is 357 lbs. avoirdupois; the lowest, is Uzulgurh Rehur 58 lbs.; the general average of the district is 162 lbs. per acre.

The Moradabad return gives an average of 247 lbs. per acre.

Budaon	-	-	-	-	360	"	"
Bareilly	-	-	-	-	128	"	"
Shahjehanpore	-	-	-	-	241	"	"

The average for the whole division is 227 lbs. per acre. This is greatly in excess of Dr. Royle's estimate of Indian cotton produce, which he considers not to average more than 100 lbs. per acre. I think it may have been somewhat overrated, and I feel disposed to accept the Bijnour average of 162 lbs. per acre in preference to the general one deduced above.

6. What

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried in the event of an increased demand?

						Quantity of Land now under Cotton Cultivation.	How far it could be Extended.
Bijnour	-	-	-	-	-	19,039 acres.	
Moradabad	-	-	-	-	-	50,000 acres.	
Budaon	-	-	-	-	-	34,091 acres.	As far as 45,398 acres.
Bareilly	-	-	-	-	-	29,711 acres.	
Shahjehanpore	-	-	-	-	-	7,160 acres.	As far as 11,733 acres.

The Collectors of Bijnour, Moradabad, and Bareilly, state that the quantity of land in their districts adapted for rearing cotton is very great, and if a remunerating price could be obtained for the article; that is, if its cultivation were more profitable than that of other produce, it could be grown to almost any extent.

3. The result of the inquiries instituted, proves that the average price of cotton, freed from seed, at the principal marts in this division, shortly after the crop has been gathered, is 2 d. per lb. avoirdupois, and that the ryot himself sells it at this rate, or perhaps a trifle cheaper.

4. The cost of packing and of conveying the article to Calcutta, which is the nearest port for shipment, has not been accurately ascertained. It is never so conveyed, and therefore the returns from Moradabad and Budaon on this head, can only be considered an approximation. Information on this point can be much better obtained at Agra and Calpee, or at other large marts on the Jumna and Ganges. I think it will be found that 1 d. per lb. will cover all expenses to Calcutta, and will leave a reasonable profit in the hands of the exporter.

5. This would raise the price of the cotton of this province to 3 d. per lb. in Calcutta, and this appears to be the price below which it cannot be sold in America. This too has for a series of years been its price at Bombay. I am not aware what the charge of freight from Calcutta or Bombay to Liverpool would be, but it would certainly exceed the charge from America to Liverpool.

6. It may therefore be safely assumed, that the actual cost of the cotton of this province, will, on its reaching Liverpool, exceed that of American cotton, nor does there appear to be any possibility of decreasing this cost; on the contrary, the export of cotton from this province in any large quantity would immediately raise its price, and so would all improvements on the culture of the plant, and the clean picking of the cotton.

7. The cause of this high cost of production is to be traced chiefly to the high price paid as rent for good cotton land. In the Bijnour district it is excessively high. For the whole of this division it cannot be estimated at less than four rupees per acre. Assuming the average produce per acre to be 162 lbs., and the market price of the article to be 2 d. per lb., it will be seen that one-half of the said price is composed of rent.

8. Nor is this high rent the result of the Government assessment. However moderate the demand of Government may be; nay, even if the land be rent-free; the rent charged to the ryot for good cotton land would be much the same.

9. The soil of Rohilkund appears to me to be well adapted to the production of cotton, this is proved by its vigorous growth, and if a remuneratory local price, say 3 d. per lb., could be obtained, its cultivation might be greatly extended. At present the total produce cannot be said to exceed the demand of the people of the province. A considerable quantity is imported from the country westward of the Ganges to Chundowree, whence it is taken by land carriage to the eastward, to Shahjehanpore and Oude.

10. The following Table shows that only 1-26th part of the cultivated area of this division is grown with cotton, and that the average produce available for each inhabitant is only five lbs. avoirdupois. This must barely suffice for the wants of the people.

DISTRICT.	Area of District in Acres.	Cultivated Area in Acres.	Extent of Cotton Cultivation in Acres.	Cotton Produce in Lbs. calculated at 162 lbs. per acre.	Population.	Quantity of Cotton Produce to each Person.
Bijnour	1,218,561	503,083	19,039	3,084,318	620,546	5 lbs.
Moradabad	1,899,065	675,862	50,000	8,100,000	997,362	8 lbs.
Budaon	1,515,764	829,323	34,091	5,522,742	825,712	6 $\frac{2}{3}$ lbs.
Bareilly	1,880,163	949,879	29,711	4,813,182	1,143,657	4 $\frac{1}{4}$ lbs.
Shahjehanpore	1,589,308	674,645	7,160	1,159,920	812,588	1 $\frac{1}{3}$ lbs.
TOTAL	8,102,861	3,632,792	140,001	22,680,161	4,399,865	5 lbs.

I.

Bengal and
North Western
Provinces.

11. The cotton now grown in Rohilkund is inferior in quality and staple, and it is so full of impurities as greatly to deteriorate its value, and to render it unfit for the English manufacturer.

12. The chief cause of the inferiority of the cotton of this province, is to be found in the bad quality of the seed sown. The same has been sown from time immemorial in the same village. It may originally have been good; but it is in the nature of all seeds to deteriorate, if constantly reproduced in the same locality, unless great care be taken to prevent the process by attention to cultivation. This is not done. The seed originally bad, is sown broad-cast in a soil that is rarely manured, and in this province never irrigated. The plants come up most irregularly, generally so closely packed together as to interfere with their lateral growth, and occasionally a patch of several yards may be seen without a single plant, the seed having been washed away by the rains. In the same field, too, are sown inferior grains, such as oord, tilh, urhur, &c. The fields are weeded and the soil loosened about the roots of the plant, but not hoed; such is the process of cultivating the plant.

13. The second drawback upon the cotton of this province, is to be found in the impurities it contains. These are almost all attributable to carelessness in gathering. In America each cotton gatherer is provided with three pockets. Into No. 1 is put the very best and purest cotton, into No. 2 that of second quality, into the third the worst of all. In this country, the good, the inferior, and the refuse which falls to the ground and is attacked by insects and animals, are all put indiscriminately into one common bag, and all thereby contract so many of the dry friable particles of the leaves of the plant as to render their separation from the cotton a matter of great difficulty and expense. The American precaution is extremely simple, could readily be introduced, and would soon be appreciated by the natives, when they found that it secured to them a higher price for their produce.

14. In conclusion, I would strongly recommend that each collector of this division be supplied with a quantity of the best cotton seed from Central India. I would prefer the indigenous to foreign seed. That done, the rest may be left to nature and the ryot. Without this first necessary, improvement in the quality and staple of the cotton of this province is hopeless.

Commissioner's Office, Rohilkund Division,
Bareilly, 29 September 1848.

I have, &c.
(signed) *Henry Pidcock*,
Commissioner.

(True copy.)

(signed) C. Allen,
Offic. Secy. to the Govt. of the N. W. P.

(No. 21 in No. 1500 of 1849).—(No. 252).

From *R. K. Dick*, Esq., Collector of Bijour, to *Henry Pidcock*, Esq., Commissioner of Rohilkund Division, Bareilly.

Sir,

I HAVE the honour to submit a statement, showing the information required by the Honourable the Court of Directors in their despatch, forwarded with your circular No. 23, dated 6th March last, regarding cotton.

As the beegah varies in every pergunnah, I have inserted the land in acres, and the quantity of produce in pounds avoirdupois.

The price is in Company's rupees, and is the usual rate at which cotton is sold wholesale soon after the crop comes into the market in an average season. The price of cleaned cotton freed from seed is given; uncleaned kupas sufficient to produce the same quantity would sell at the same price, as the seed will pay for the cost of cleaning it.

The cotton on this side of the Ganges is considered better than that produced in the Dooab, where much is imported into this district; the quantity exported is not great, as the demand in the hills for coarse cotton cloth, and wadded dresses and "resaies" for the cold season, is considerable.

There is abundance of land adapted for the growth of the country cotton, but the system of butae tenures, which so generally prevails, acts as a check on the extension of the cultivation under that system; the rent paid varies with the crop, and is very high on cotton*.

The

* Rent paid for cotton land per acre:

			Rs.	a.		Rs.	a.			Rs.	a.		Rs.	a.	
Bijnour -	-	from	8	-	to	6	-	Afzulgurh -	-	from	7	9	to	2	6
Mundawur -	-	from	8	-	to	5	-	Dhampoor -	-	from	8	-	to	5	3
Daranuggur -	-	from	9	14	to	4	12	Sohara -	-	from	6	12	to	2	6
Najeebabad -	-	from	7	8	to	3	12	Rehtour -	-	from	9	-	to	4	12
Keeruthpoor -	-	from	10	8	to	3	13	Chandpoor -	-	from	8	4	to	4	-
Ukberabad -	-	from	6	12	to	5	10	Bashta -	-	from	8	4	to	1	14
Nugeenah -	-	from	9	6	to	6	6	Boorpoor -	-	from	9	-	to	2	-
Barhapoorah -	-	from	7	4	to	2	8								

TO PROMOTE THE CULTIVATION OF COTTON IN INDIA. 59

The most prevalent nominal rate is 4 s. 8 d. per beegah, but as the size of the beegah varies in every pergunnah, the actual rent also differs. The ryot therefore does not find it profitable to grow cotton except in the best lands; he is obliged in many places, by custom, to plant a certain quantity, but he reluctantly exceeds the prescribed amount. Moreover, the crop depends upon being carefully cleared from weeds early in the season, and at the same time the extensive sugar crops grown in this district, and the rice also, require the same process. The supply of labour does not equal the demand at that particular season, and therefore the cultivator finds it better to give up the cotton crop, and use the land that ought to produce cotton for rubbee.

The quantity of land cultivated with cotton measured by the survey twelve years ago was 18,183 acres; the amount in the present return is 19,039 acres, while cultivation has extensively increased in a much greater proportion.

I doubt whether the price which the cotton of this country is likely to command in the home market would cause the cultivation to be much extended here.

I have, &c.
(signed) R. K. Dick,
Collector.

Bijnour Collectorship,
12 August 1848.

(True copy.)
(signed) C. Allen,
Officiating Secy. to the Govt. of the N. W. P.

(COPY.)

(No. 22 in No. 1500 of 1849.)

STATEMENT of the QUANTITY of COTTON produced in Zillah Bijnour, with the MARKET PRICE, &c.

1. PERGUNNAHS.	2. Quantity of Land under Cotton Cultivation in Acres.	Estimated Average Produce of Clean Cotton per Acre in Lbs. Avoirdupois.			6. Total Estimated Quantity of Clean Cotton Produce, in Pounds.	Price in Pounds, per Rupee		9. Cost of Cleaning per 100 lbs.	10. Proportion of Clean Cotton in a given Quantity of Kupas.
		3. Highest Average.	4. Lowest Average.	5. Average of Pergunnah.		7. At which the Ryots Sell.	8. At Principal Markets.		
Bijnour - - - - -	1,641	190	102	133	217,550	12 -	11 4	2 -	5/17
Mundawur - - - - -	1,034	190	100	152	157,168	12 -	11 4	2 -	5/17
Daranuggur, &c. - - - - -	1,456	228	80	155	226,360	12 -	11 4	1 12	5/17
Vujeebabad - - - - -	1,244	357	90	216	268,672	12 6	12 -	1 10	1/3
Keeruthpore - - - - -	1,090	288	100	170	184,110	12 -	10 8	1 12	5/16
Vkberabad - - - - -	812	250	120	160	127,725	12 -	11 4	2 -	5/17
Nugeenah - - - - -	1,152	241	120	228	268,545	11 4	10 8	2 2	1/3
Barhapoora - - - - -	827	240	180	188	156,064	11 4	10 8	2 2	1/3
Afzulghur Rehur - - - - -	1,382	268	58	170	234,656	12 -	10 8	2 2	1/3
Dhampoor - - - - -	1,806	242	110	168	303,220	11 4	10 8	1 14	5/17
Sohara - - - - -	1,179	180	120	165	194,985	12 -	11 4	2 2	5/8
Natore - - - - -	1,095	200	100	160	175,200	12 -	10 8	2 2	5/17
Chandpoor - - - - -	2,047	232	116	145	298,272	12 6	12 -	2 -	1/3
Bashta - - - - -	1,221	174	86	110	135,432	12 6	12 -	2 2	1/4
Boorpoor - - - - -	1,053	245	82	137	144,751	12 6	12 -	2 -	5/16
TOTAL - - - - -	19,039	357	80	162	3,087,710	12 -	11 -	2 2	From 1/3 to 1/4

REMARKS.—Cost of conveyance of 100 maunds, of 96 lbs. each, by the River Ganges to

	R.	A.	P.
Patna - - - - -	100	-	-
Benares - - - - -	60	-	-
Mirzapore - - - - -	55	-	-
Allahabad - - - - -	50	-	-
Cawnpoor - - - - -	30	-	-
Futtyghur - - - - -	22	-	-

The quantity of land has been taken from Putwaries papers for 1254 F. S. The average produce of each village has been assumed according to the supposed capability of the soil in an ordinarily favourable year, and the sum of the whole has been put in Column 6. The proportion of clean cotton to the "kupas" varies from $\frac{1}{4}$ to $\frac{1}{3}$; generally it is considered to be about $\frac{1}{4}$. The cost of cleaning, in Column 9, is that which is most generally considered the rate in the pergunnah; but the most usual mode is to give the cleaner the cotton seed for his trouble. This, however, is not so profitable as payment in money at the rate stated in the return, especially when the proportion of clean cotton is small; the seed sells at about one maund of 96 lbs. per rupee. No boats from this part of the country go below Patna, therefore the cost of conveyance is given to the intermediate marts on the Ganges; the additional cost from any one of them can be added.

Bijnour Collector's Office,
12 August 1848.

(signed) R. K. Dick,
Collector.

(True Copy.)
(signed) C. Allen,
Officiating Secretary to the Government of the North Western Provinces.

I.
Bengal and
North Western
Provinces.

(No. 23 in No. 1500 of 1849.)—(No. 268 of 1848.)

From *J. C. Wilson*, Esq., Collector of Moradabad, to *H. Pidcock*, Esq., Commissioner of Rohilkund Division.

Sir,

I HAVE now the honour to submit a reply to the several queries contained in the Court of Directors' despatch, No. 14, of the 10th November 1847.

2. The only cotton mart in this district of any consequence is that of Chundowree; and the details herein given with reference to the cotton trade are taken from that mart. The agricultural details are taken from the whole district.

Question 1. 3. In the mart of Chundowree (rooe) cotton cleaned is now selling at *Rs.* 10. 8. the maund of 40 seers, each seer weighing 100 Queen Victoria rupees. The same cotton was sold by the ryots in October and November last, the season of cotton picking, for *Rs.* 7. 8. the maund. The present high price is owing to the absence of rain (13th July 1848), the monsoon not having yet commenced. Moradabad cotton is picked with greater care, and is much more free from leaf than the cotton of the Doab; and Doab cotton always sells in Chundowree 12 annas, or one rupee cheaper than Moradabad cotton, though the staple of the Doab cotton is much better than the staple of the Moradabad cotton; in fact, the staple of the cotton of this part of Rohilkund is the shortest and worst I have ever seen.

Question 2. 4. Out of 100 ryots who cultivate cotton in this district, 90 sell it as kupass, viz., with the seed in it, and 10 sell it as rooe, viz., cleaned of seed. If (rooe) cleaned cotton, as was the case in October and November last, sells for *Rs.* 9. 8. the maund, (kupass) cotton with the seed in it sells for *Rs.* 2. 8. the maund. The general cause assigned for 9-10ths of the cultivators selling their cotton with the seed in it, is want of leisure. Before the instalments of the revenue were charged, and the date of payment was much earlier than it is at present, a cotton-growing ryot who had received advances from the banker used to sell his (kupass) cotton with seed in it to the banker at one seer more than the bazar rate of the season; that is to say, if the rate, as was the case in October and November last, was *Rs.* 2. 8. per maund, 16 seers were sold for a rupee. The ryot who had received advances would give his (kupass) cotton with seed in it to his banker at 17 seers for a rupee. This extra seer covered the interest for the two months or so that the ryot had enjoyed the advance; but now, in consequence of the Government revenue not being demanded till the ryots have had time to dispose of their produce, no advance is made, and no cheaper rate exists.

Question 3. 5. A maund of (kupas) cotton with the seed in it gives from 15 seers to 12 seers of cleaned cotton, and 25 to 28 seers of (benowla) cotton seed. The cost of separating the seed of the cotton by the churkee is 1 rupee per maund, the churkee being the property of the owner of the cotton, and costing about five and a half annas; the cotton seed is also the right of the cotton owner. There is in this district no machine in use for cleaning cotton, save the churkee.

Question 4. 6. Three annas per maund is the cost of cart-hire from Chundowree and Moradabad to the ports on the Ganges, Ramghat and Budrawl Ghat. Thence to Calcutta by water the conveyance is 8 annas per maund. Insurance thence to Calcutta *Rs.* 2. 8, besides the cost of a peon called churrundar, who receives 50 rupees and who watches over one boat, which boat contains 700 maunds more or less of cotton. The cost of canvass for wrapping up a maund of cotton is 6 annas, and this sum includes the cost of the labour used in filling the bags. Cotton is not now compressed by screws in this district.

Question 5. 7. Three maunds and eight seers of (rooe) cotton cleaned of the seed per acre is considered a very good return. Two maunds and sixteen seers per acre is about the average.

Question 6. 8. The amount of (rooe) cotton freed from seed produced now in the Moradabad district is supposed to be 1,18,749 maunds, and the quantity of land under cotton cultivation is supposed to be about 50,000 acres.

9. Provided the ryots could be certain of a market in this district in which they could readily procure 10 Queen Victoria rupees for a maund, the cultivation could be increased to any extent.

Moradabad Collectorship, I have, &c.
21 July 1848. (signed) *J. C. Wilson*, Collector.

(True copy.)

(signed) *C. Allen*,
Officiating Sec. to the Govt. of the N. W. Provinces.

(No. 24 in No. 1500 of 1849.)—(No. 199.)

From *C. W. Fagan*, Esq., Collector of Budaon, to *H. Pidcock*, Esq., Commissioner of the Rohilkund Division.

Sir,

IN reply to your circular, No. 18, of the 29th February, forwarding copy of a letter from the Secretary to Sudder Board of Revenue, No. 529, of the 12th February, and your subsequent circular, No. 23, of the 6th March, on the same subject, I have the honour to reply that the necessary inquiries were made through the Mofussil officers in regard to the queries contained in the annexure to your letter, No. 14, of 1847, addressed by the Honourable the Court of Directors to the General Government. For facilitating reference the queries are noted below, and the replies.

1. What is the price of cotton, freed from seed, at the principal mart or marts in your district?

There are no large cotton marts in the district; the cotton is generally sold at the village markets, which periodically occur once or twice a week. The price of cleaned cotton in the market is generally five seers per rupee.

. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advance?

The practice of taking advances is not general, or rather very rare. The ryot sells his uncleaned cotton at 20 seers per rupee and his cleaned cotton at five seers per rupee.

3. What is the expense of cleaning cotton by the churkee or foot roller, or by any other method which may be in use?

The churkee is the only method of cleaning cotton prevalent in this district. The kupas, or cotton with the seed, yields one-fourth in clean cotton. The expense of cleaning is one rupee for five maunds.

4. What are the expenses of conveying cotton to the nearest port for shipment?

Cotton is not exported to any port for shipment from the eastern portion of this district. It is exported by the Ganges from the western, to Futtehghur, Cawnpore, Mirzapore, and Calcutta. The expense of conveying cotton to Calcutta is 85 rupees per 125 maunds.

5. What is the average produce of cotton per beegah, or acre?

The produce of cotton per beegah varies considerably. The highest may be considered 50 seers, and the lowest 20 seers per kutchah beegah of five beegahs to the acre. The average produce may be considered 35 seers per kutchah beegah.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried in the event of an increased demand?

The quantity of land under cultivation of cotton amounts to 1,70,454 kutchah beegahs, and the quantity to which the cultivation could be extended is estimated at 2,26,992 kutchah beegahs, amounting in the whole to 3,97,446 kutchah beegahs.

The denominations used are the company's rupees, the beegah of five to an acre, and the maund of 40 seers of 80 tolahs to the seer.

I have, &c.

Budaon Collectorship, (signed) *C. W. Fagan*, Collector.
1 July 1848.

(True copy.)

(signed) *C. Allen*,
Officiating Sec. to the Govt. of the N. W. Provinces.

(No. 25 in No. 1500 of 1849.)—(No. 143 of 1848.)

From *F. Williams*, Esq., Collector of Bareilly, to *H. Pidcock*, Esq., Commissioner, Rohilkund Division.

Sir,

I HAVE now the honour to reply to your circulars, Nos. 18 and 23, dated respectively 29th February and 6th ultimo, on the subject of the cotton produce of this district.

2. Cotton is not cultivated to any extent in this district, that produced being far short of the quantity required for home consumption; nor does Bareilly appear to be suited in soil and climate to the improvement contemplated on either the growth of the plant or the extension of its cultivation.

3. I shall endeavour to reply to the queries subjoined to the Honourable Court's despatch of 10th November as nearly seriatim as possible.

I.

Bengal and
North Western
Provinces.

1. Price of cotton, freed from seed, at the principal mart or marts?

There are only two large towns in the district, Bareilly and Pillibheet. The average price at these marts is 10 rupees per maund of 125 lbs. troy, or about 2*d.* per lb.

2. Price at which the ryot sells his cotton, cleaned or uncleaned, and with or without advances?

The ryot never cultivates cotton for purposes of trade. It is grown in quantities just sufficient for the cultivator's own use, or if for the market, still only to a very small extent, and this only as a secondary object, his primary purpose in cultivating it at all being the supplying of his want. Hence the cotton of the ryot brought into the market is always in a cleaned state, the seed being separated and retained for fodder for the cattle of his fields. Exceptions, of course, exist to this practice, and when the ryot is obliged to part with all his cotton, he will sell it in the pod, sometimes unplucked, the field as it stands being sold. The price of the cleaned cotton is the same as that of any other cotton, whether grown in the village or imported, and often equal to the price current in town. The "kuppas," or cotton in the pod, which is seldom, if ever, brought into market, is *Rs.* 2. 8. per maund. As the cultivation is always undertaken voluntarily, and for the cultivator's own use, no advances are made or received.

3. Expense of cleaning cotton and mode of doing so?

The process of cleaning cotton is of the rudest possible, viz., by the raintee or ryhutee, called also churka. The expense is paid in one of the three following modes:—1. When the cleaner takes the seed for his labour. 2. When he is paid in kind, *i. e.*, in grain of the cheapest kind, of equal weight to the cotton cleaned by him during the day; this amounts to about 9 or 10 pies in value, for he seldom works out more than four seers of cotton per diem, and four seers of saunttee (coarse rice), which he obtains, seldom exceed that in value. 3. By day labour, at one anna per diem, provided the cotton cleaned by evening weighs four, or about four seers.

4. Expenses of carriage to the nearest port for shipment?

I am not prepared to afford a correct estimate of this expense, and as Bareilly is not likely ever to supply sufficient cotton for exportation, it would be useless for me to delay my report till I can furnish the information.

5. Average produce of cotton per beegah or acre?

The inquiries on this point have elicited some interesting circumstances, showing the extent of the knowledge exercised by the natives in the culture of this important plant. The culturable land is divided into three classes:—1. Gowhanee, comprising fields surrounding the village site, and extending to three khets or fields round. 2. Har, or munjha, three fields or khets beyond the gowhanee. And, 3. Jungle or burha, all beyond the har. Cotton in the deis, or plains, is principally grown in the pergunnah of Aonla, where all the three classes of land are equally appropriated to its cultivation, but gowhanee is preferred. In the Mar country, or tract lying in the Turaeen pergunnahs, where also it is cultivated to a limited extent, the gowhanee only is taken up for this purpose. The produce of the gowhanee is always superior and more abundant than that of the other classes, but that of the Mar. Gowhanee is described to be even inferior to the produce of the third class soil, or burha of Aonla. The general impression in the district appears to be that cotton thrives best on high table land, and requires a soil neither too dry nor too humid; that manure of cattle-dung is essential to the rapid development of the stems, branches, &c., and that accordingly the gowhanee fields in immediate vicinity of the village, where the cattle are principally collected night and morning, are the best. The average proportion between the gross produce of these different classes of land and the quantity of pure cotton is given thus:—

1. Gowhanee produce gives in every maund one-third of pure cotton.

2. Har gives 12 seers.

3. Burha gives 10 seers.

The first is ploughed five times before it receives the cotton seed; the second, or har, four times; and the burha three times. The seed sown is $1\frac{1}{4}$ seer per beegah, or about 7 seers 13 chutacks per acre. The cost of weeding, a process twice performed before the pods are plucked, is from 4 to 10 annas per beegah, or from *Rs.* 1. 9. 3. per acre to *Rs.* 3. 14. 6. per acre. The produce is estimated to average as follows:—

	Kupas, or Uncleaned Cotton.		Pure Cotton.	
	Per Beegah.	Per Acre.	Per Beegah.	Per Acre.
	Mds. Srs. Cks.	Mds. Srs. Cks.	Mds. Srs. Cks.	Mds. Srs. Cks.
In Gowhanee land - - - -	0 32 0	5 0 0	0 10 10½	1 26 9½
In Har - - - - -	0 28 0	4 15 0	0 8 8	1 12 8
In Burha - - - - -	0 20 0	3 5 0	0 5 0	0 31 4

The pods are ripe for plucking first in Kartik, or about the month of October, and the plucking continues from time to time till January. Except in cases of very healthy crops, the picking is resorted to every five or six days. One-tenth of the produce is appropriated by the parties employed in picking.

Picking.

My details are exceeding the limits of the question; but the average produce per acre being determined, it is necessary to show the cost of production, in order to show why Bareilly will not admit of its cotton cultivation being extended, a point noticed in the next, or 6th question. Total cost of production per beegah.

The following tabular form gives the data, estimating this cost, and shows the profit or net return to the cultivator for every beegah of cotton cultivation on each class of land:—

CLASS of LAND.	Produce of One Beegah.			VALUE.			TOTAL EXPENSES OF PRODUCTION.										Net Profit or Return to Cultivator.
	Cotton.	Seed.	Total Produce.	Cotton.	Seed.	Total Produce.	Cost of Ploughing.	Cost of Seed.	Cost of Weeding.	Picking.	Cleaning.	Rent of Fields paid to Zemindar.	TOTAL.				
	Md. s. c.	Md. s. c.	Md. s. c.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.			
1. Gowhancee	0 10 10½	0 21 5½	0 32 0	2 10 6	- 5 6	3 - -	- 8 4	- - 4	- 10 -	- 5 8	- 2 8	- 10 -	2 5 -	- 11 -			
2. Har	0 8 8	0 19 8	0 28 0	2 2 -	- 5 3	2 7 3	- 6 6	- - 4	- 8 -	- 4 4	- 2 2	- 8 -	1 13 4	- 9 11			
3. Barha	0 5 0	0 15 0	0 20 0	1 4 -	- 4 6	1 8 6	- 5 -	- - 4	- 4 -	- 2 8	- 1 3	- 6 -	1 3 3	- 5 3			

The produce per beegah here given is, of course, an estimate. In good seasons it may be more, in bad worse; but the cost of production is given from existing rates and recorded data, and may be considered as subject to very little variation.

6. Quantity of land under cotton cultivation in the district, and extent to which it is probable to increase it?

These considerations have already prepared us for a reply to the second part of the Court's 6th question. It is clear that with so small a profit the cultivator of cotton has no temptation to increase the extent to which he at present carries it. I have already stated that this is very limited in zillah Bareilly. The following table shows the total number of acres of cotton grown at present in the district compared with the entire cultivated area. I have endeavoured to show the produce in maunds and seers in the last columns.

PART of DISTRICT CULTIVATED.	Total Cultivated Area of Zillah in Acres.	Total Area Cultivated with Cotton.	Estimated Quantity of each Class of Land Cultivated with Cotton.		Produce per Acre in Pucka Weight.	Total Produce of District.	Total Cotton of District.	
							Cotton.	Seed.
					Mds. s. c.	Mds. s. c.	Mds. s. c.	Mds. s. c.
Deis or Plains	877,069	26,841	Gowhancee	20,000	5 0 0	100,000 0 0	33,333 0 0	66,667 0 0
			Har -	5,000	4 15 0	21,875 0 0	6,562 0 0	15,313 0 0
			Burha -	1,841	3 5 0	5,753 0 0	1,438 0 0	4,315 0 0
				26,841	- - -	127,628 0 0	41,333 0 0	86,295 0 0
Mar	72,810	2,870	Gowhancee	2,870	3 5 0	8,969 0 0	2,284 0 0	6,685 0 0
TOTAL	949,879	29,711	- - -	29,711	- - -	136,597 0 0	43,617 0 0	92,980 0 0

Note.—The beegah used in the present report measures 2,725 yards, the pucka maund 125 lbs. troy, and the rupee is the Bareilly, Chullun, and Furruckabad rupee.

The cotton grown in the district, as already stated, is not sufficient for home consumption, there is therefore a large import from Chundowree, Hattaras, and other marts to the west. It is besides of the most inferior kinds, possessing not only the general fault of Indian cotton, that of being badly picked, so as to leave refuse particles of dry brads and leaves in the cotton, to a degree beyond the possibility of separating them, but wanting in both the length and the quality of the staple.

The physical causes against the improvement of this cultivation in this district have been already referred to. Dr. Royle, in his valuable essay on the productive resources of India, has pointed out that the black loamy soil of Central India is one cause of the superiority of the cotton of that part of the country. It is clear the Doab cotton is always far superior

I.
Bengal and
North Western
Provinces.

to that of Rohilkund, and we know that the soil of the Doab differs as much from the arenaceous soil of the Bareilly district, as the climate here is more humid and more subject to early frosts.

Bareilly, Collector's Office,
26 April 1848.

I have, &c.
(signed) *F. Williams*,
Collector.

(True copy.)
(signed) *C. Allen*,
Officg. Secy. to the Govt. N. W. P.

(No. 26, in No. 1,500, of 1849.)—(No. 325, of 1848.)

From *F. P. Buller*, Esq., Collector of Shahjehanpore, to *Henry Pidcock*, Esq.,
Commissioner of the Rohilkund Division.

Sir,

* No. 18, dated 29 February 1848. No. 23, dated 6 March 1848. WITH reference to your circulars, as per margin,* and to the queries contained therein, I have the honour to reply as follows:

1st. The average price of cotton freed from seed at the only large mart in this district, viz., the city of Shahjehanpore, is *Rs.* 10. 13. 9. per maund of 111 Company's rupees to the seer. In other inferior marts it is *Rs.* 10. 3. 9. per maund.

2d. The ryutt sells his cotton uncleaned at an average rate of *Rs.* 2. 8. 6. per maund. He never sells it cleaned, nor does he take advances.

3d. No other method of cleaning cotton is used but the churkhee. If the cotton cleaner uses his own churkhee, besides all the seed, he gets coarse grain, such as barley, or grain, equal in weight to the cotton cleaned. If the churkhee belongs to the owner of the cotton, the cleaner only gets the seed in payment of his trouble.

4th. No cotton is exported from this district, but is imported into it from the westward. The expense of exporting grain, &c. to the neighbouring district of Furruckabad, is *Rs.* 9. 8., or 6 annas per maund, according to the distance from which it is transported.

5th. The average produce of cotton is 2 maunds 4 seers 8 chittacks per acre, or 1 maund 4 seers 7 chittacks per pucka beegah of 2,916 square yards. The former quantity contains 1 maund 23 seers 4 chittacks of seed and 21 seers 4 chittacks clean cotton; the latter 33 seers 3 chittacks seed and 11 seers 4 chittacks clean cotton.

6th. The quantity of land under cultivation with cotton is 7,160 acres, or 13,616 pucka beegahs. In the event of an increased demand, about 4,573 acres more could be made available for the purpose. These particulars have been ascertained from a most careful inquiry, mouzawar.*

Shahjehanpore, Collector's Office,
28 August 1848.

I have, &c.
(signed) *F. P. Buller*,
Collector.

(True copy.)
(signed) *C. Allen*,
Officg. Secy. to the Govt. N. W. P.

(No. 27, in No. 1,500, of 1849.)—(No. 408.)

From *W. H. Tyler*, Esq., Officiating Commissioner of the Agra Division, to *W. Muir*, Esq.,
Secretary Sudder Board of Revenue, N. W. P.

Sir,

WITH reference to your docket of the 18th February last, No. 52, forwarding copies of a letter and of its enclosure from the Secretary to the Government of India, requesting information as to the extent to which India might be capable of supplying cotton in the event of an increased demand, I have the honour to submit the accompanying statement prepared in this office, exhibitory of the amount to which the cultivation of cotton can probably be extended in the districts comprising the Agra Division, with prices at which it can be procured in a cleaned or uncleaned state, at the marts or from the growers, with memorandum of cost of transit to nearest port of shipment. The answers received from the collectors are also submitted.

Commissioner's Office, Agra Division,
10 November 1848.

I have, &c.
(signed) *W. H. Tyler*,
Officiating Commissioner.

(True copy.)
(signed) *C. Allen*,
Officg. Secy. to the Govt. of the N. W. P.

* Village by village.

(No. 28, in No. 1500 of 1849.)—(No. 87.)

From *E. Thornton*, Esq., Collector of Muttra, to *W. H. Tyler*, Esq., Officiating
Commissioner of the Agra Division.

Sir,

I HAVE the honour to acknowledge the receipt of your letter, No. 13, dated the 25th ultimo, and of its accompaniments. I proceed to give the answers to the several questions.

1st. The average price of cotton freed from seed, at the principal mart in this district, is stated to be *Rs. 7. 2. 8.* per maund of first class cotton, and *Rs. 6. 3. 5.* per maund of second class cotton.

2d. The average price the cultivator obtains is stated to be *Rs. 6. 13.* for clean cotton, and *Rs. 2. 4. 2.* for uncleaned cotton. In this district the cultivator is generally obliged to part with it before it can be cleaned.

3d. The expense of cleaning cotton averages one rupee per maund of clean cotton.

4th. The expense of conveying cotton from this district to Calcutta, is *Rs. 1. 15.* per maund, viz, one rupee for boat hire, seven annas for packing, and eight annas insurance.

5th. The average produce of cleaned cotton per acre is two maunds and eight seers.

6th. The quantity of land under cotton cultivation is 103,042 acres. I am under the impression that a very much larger portion of the 761,277 acres which form the cultivated area of this district, perhaps one-third, would produce cotton.

The rupee is that described in Section 1, Act XVII. of 1835, and the maund that described in Section 4, Act VII. of 1833.

I have, &c.

(signed) *Edward Thornton*,
Collector.Zillah Muttra Collector's Office,
23 May 1848.

(True copy.)

(signed) C. Allen,
Officiating Secy. to the Govt. of the N. W. P.

(No. 29, in No. 1500 of 1849.)—(No. 284.)

From *C. C. Jackson*, Esq., Collector of Agra, to *W. H. Tyler*, Esq., Officiating
Commissioner of Revenue, Agra.

Sir,

In reply to your letter of the 25th March last, No. 13, forwarding copies of a letter, and of its enclosure, from the Secretary to Government of India to the address of the Secretary to the Government N. W. Provinces, of the 15th January last, I have the honour to submit replies to the queries of the Court of Directors relative to the growth, cleaning, and shipment of cotton from the Agra district.

I have, &c.

(signed) *C. C. Jackson*.Zillah Agra Collector's Office,
24 August 1848.

(True copy.)

(signed) C. Allen,
Officiating Secy. to the Govt. N. W. P.

(No. 30, in No. 1500 of 1849.)

Question 1. What is the price of cotton, freed from seed, at the principal mart or marts in your district?

Answer. There are four large marts in this district, Agra, Kuchowrah, with Bah in its neighbourhood, Ferozabad, and Jugneer. The average prices during the past official year, ending 30th April 1848, were, at Agra, *Rs. 17. 3.* per maund; at Kuchowrah, *Rs. 7. 14.*; at Ferozabad, *Rs. 7. 3.*; and at Jugneer, *Rs. 6. 10.*

A large portion of that disposed of at Agra, Jugneer, and Kuchowrah, is the produce of the neighbouring independent states of Gwalior, Kerowlee, and Tonk.

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?

The ryot sells his cotton to the money-lender, from whom he receives advances for its growth, at a price varying from eight annas to a rupee below the bazar rate. The system

I.
Bengal and
North Western
Provinces.

of making advances for such produce is not in general use in this district. Those who cultivate without advances, dispose of the article at the price of the day, which varies according to its distance from the nearest mart.

3. What is the expense of cleaning cotton by the churka, or foot roller, or by any other method which may be used?

Cotton is cleaned by the churka at an expense of one rupee per maund, but the labourers are not usually paid in cash; they willingly clean a maund of cotton, and take the cotton seed, or benowlah, in remuneration for their trouble.

4. What are the expenses of conveying cotton to the nearest port for shipment?

Cotton grown in the district is brought in to Agra and Kuchowrah for shipment in boats at an expense of two, three, and four annas a maund, with reference to the distance of its place of growth from the river Jumna. The expense of conveying cotton by boats to Calcutta, which is the nearest seaport, either from Agra or Kuchowrah, is about a rupee per maund. It is ordinarily conveyed to Mirzapore, on the River Ganges, at a charge of seven to eight annas per maund, to be there reshipped for Calcutta.

5. What is the average produce of cotton per beegah, or acre?

One acre of land produces 1 maund and 15 seers of cotton, or, avoirdupois weight, 3 qrs. 29 lbs. 2 oz. 4 drs.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried in the event of an increased demand?

In the Agra district, land to the extent of 87,000 acres is cultivated with cotton; 33,000 acres more, adapted for its culture, might be sown, if a more ready market could be found for the produce.

(signed) C. C. Jackson, Collector.

Zillah Agra Collector's Office,
24 August 1848.

(True copy.)

(signed) C. Allen,
Officiating Secy. to the Govt. N. W. P.

(No. 31, in No. 1500 of 1849.)—(No. 223 of 1848.)

From C. Raihes, Esq., Officiating Collector of Furruckabad, to W. H. Tyler, Esq.,
Officiating Commissioner of Agra.

Sir,

IN reply to your circular, No. 13, dated 25th March last, with its enclosures, on the subject of the produce of cotton in this district, I have now the honour to submit the information required by Government.

Query 1. What is the price of cotton, freed from seed, at the principal mart or marts, in your district?

Answer. The principal mart is the town of Furruckabad, where cotton freed from seed is sold at three different rates, according to quality, viz., at 11, 12 and 13 rupees per maund, calculated by the large weight of 96 rupees to the seer.

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advance?

The ryot sells only the uncleaned cotton, and the purchaser is generally the Beorah, or moneylender, with whom he has dealings, and who buys it at something less than the prevailing market rate.

It is not customary in this district to make advances specially for the cultivation of cotton,

3. What is the expense of cleaning cotton by the churkha or foot-roller, or by any other method which may be in use?

The process of cleaning is that of the churkha alone. The seed of the cotton is given in exchange for the labour of cleaning it, or otherwise, eight annas per maund. One maund of cotton is estimated to contain 28 seers of seed.

4. What are the expenses of conveying cotton to the nearest port for shipment?

The distance of the ghat from the town is two coss; the expense of carriage is one anna per maund.

5. What is the average produce of cotton per beegah, or acre?

Good soil yields two maunds per pucca beegah, and inferior soil, one maund of raw cotton.

6. What

6. What is the quantity of land under cultivation with cotton, and what extent is it probable that the cultivation could be carried in the event of an increased demand?

Agreeably to the return of produce of 1255 F. S., 14,148 acres are found to be under cotton cultivation this year.

2d. The local officers of the district have given it as their opinion, after making detailed inquiries, that 7,008 acres more might be made available for cotton cultivation, if required. But as any land that lies high and is irrigable may be made to produce cotton by labour and manure, it is not easy to fix a limit on the extent of cotton cultivation which might result from high prices.

Furruckabad Collectorate,
24 July 1848.

I have, &c.
(signed) C. Raikes,
Officiating Collector.

(True copy.)

(signed) C. Allen,
Officiating Secy. to the Govt. of the N. W. P.

(No. 32 in No. 1,500 of 1849.)—(No. 302 of 1848.)

From R. Thornton, Esq., Officiating Deputy Collector of Furruckabad, to W. H. Tyler, Esq.,
Officiating Commissioner of Agra.

Sir,

IN reply to your letter, No. 300, dated 26th ult., relative to the cost of carriage of cotton to Calcutta, I have the honour to state for your information, that the cost falls at an average of 8 annas 4 pie per maund. The hire of a boat capable of holding 250 bales, the usual load, is 325 rupees, and each bale contains 2½ maunds.

Furruckabad Collectorate,
19 October 1848.

I have, &c.
(signed) R. Thornton,
Officiating Deputy Collector.

(True copy.)

(signed) C. Allen,
Officiating Secy. to the Govt. of the N. W. P.

(No. 33, in No. 1500 of 1849.)—(No. 218 of 1848.)

From Henry Unwin, Esq., Collector of Mynpoory, to W. H. Tyler, Esq., Officiating Commissioner Second Division, Agra.

Sir,

I HAVE the honour to furnish the answers required to the questions put in the extract from despatch of the Court of Directors. They are the result of inquiries made by the Deputy Collector Jumaloddeen, to whom Mr. C. Raikes deputed the task of collecting accurate information.

The mart of Phurha, once flourishing, is now nearly superseded by that of Agra for cotton. That of Sirsa Gunge is still a very large one, and if a metal road from that place to Bikrampoor Ghat were constructed, it would much facilitate the conveyance of cotton. My attention will be turned to this subject in the next cold season.

Mynpoory Collector's Office,
2 September 1848

I have, &c.
(signed) H. Unwin,
Collector.

(True copy.)

(signed) C. Allen,
Officiating Secy. to the Govt. of the N. W. P.

(No. 34, in No. 1500 of 1849.)

Answers to the Court of Directors' questions on the Price, Growth, &c., of Cotton in Zillah Mynpoory.

Question 1. What is the price of cotton, freed from seed, at the principal mart or marts in your district?

Answer. There are two principal cotton marts in this district, viz., Phurha and Sirsa Gunge. The average price of cotton free from seed, calculated on the past 10 years at these two marts, is as follows, viz.:

	Rs.	as.	p.	
Phurha	7	14	—	per ma und of 40 seers, Government standard.
Sirsa Gunge	8	—	6	ditto ditto ditto.
296—Sess. 2.				I 2
				2. At

I.
Bengal and
North Western
Provinces.

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?

The ryot brings his cotton cleaned to the above marts at *Rs.* 7. 14. and *Rs.* 8. 0. 6. per maund, as given above. When advances are made five months previously, he abates one rupee per maund on those rates, and for short periods of advance, *i.e.*, 10 or 20 days, an anna or two, according to agreement.

3. What is the expense of cleaning cotton by the churka or foot-roller, or by any other method which may be in use?

It is customary to pay the cleaning cotton, either with the seed freed from the quantity cleaned, or 8 as. per maund of Government standard. Good uncleaned cotton generally produces 10 seers of cotton and 30 seers of seed, considered equivalent in value to 8 annas.

4. What are the expenses of conveying cotton to the nearest port for shipment?

The charge for conveying cotton from Phurha to Chundwa Ghat on the Jumna, in the Agra district, the nearest port, is generally 2 annas; and from Sirsa Gunge to Bikrampoor Ghat on the Jumna in the Etawah district, 1 anna per maund. This rate, however, often fluctuates.

5. What is the average produce of cotton per beegah or acre?

According to the best obtainable information, for there are no official returns of produce, the average produce of cotton per pucca beegah may be taken at 7 maunds, or something less than 13 maunds per acre.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation would be carried in the event of an increased demand?

Twenty-nine thousand two hundred and ninety acres is the quantity of land ascertained to have been under cultivation with cotton in one year; much of the soil of this district is favourable to the growth of cotton, and its cultivation could be carried on to a great extent, according to the demand.

(signed) *H. Unwin*, Collector.

(True copy.)

(signed) *C. Allen*,
Officiating Secy. to the Govt. of the N. W. P.

(No. 35, in No. 1500 of 1849.)—(No. 261 of 1848.)

From *H. Unwin*, Esq., Collector of Mynpoory, to *W. H. Tyler*, Esq., Officiating Commissioner Second Division, Agra.

Sir,

In reply to your letter (No. 181), dated 26th ult., I have the honour to state that it is impossible to ascertain the expense of carriage further than to Mirzapore, to which place cotton is conveyed by boats from Chundwar and Bikrampoor Ghats, at the rate of three maunds per rupee.

Mynpoory Collector's Office,
10 October 1848.

I have, &c.
(signed) *H. Unwin*,
Collector.

(True copy.)

(signed) *C. Allen*,
Officiating Secy. to the Govt. of the N. W. P.

(No. 36, in No. 1500 of 1849.)—(No. 137 of 1848.)

From *J. A. Craigie*, Esq., Officiating Collector of Etawah, to *W. H. Tyler*, Esq., Officiating Commissioner, Agra Division.

Sir,

I HAVE now the honour to submit in a tabular, as the most convenient form, the information called for in your circular (No. 13) of 13th March.

2. The table has cost some trouble, I therefore trust the delay may be overlooked. I also endeavoured to draw up some notes on the subject; but it has occupied the attention of Government so deeply of late, that my inquiries could not tend, I am sure, to throw any additional light on the point; but the attempt may be received, I trust, as an additional apology for not replying to your orders sooner.

Zillah Etawah Collectorship,
7 September 1848.

I have, &c.
(signed) *J. A. Craigie*,
Officiating Collector.

(True copy.)

(signed) *C. Allen*,
Officiating Secy. to the Govt. of the N. W. P.

No. 37, in No. 1500 of 1849.

STATEMENT exhibitory of the Amount to which the Cultivation of Cotton can probably be extended in Zillah Etawah, with Prices at which it can be procured in a clean or uncleaned state, at the Marts, or from the Growers, with Memorandum of Cost of Transit to nearest Port for Shipment.

NAME of P E R G U N N A H.	Price of Cleaned Cotton (per Maund, 102 Company's Rupees to the Seer) sold at the Marts.	COTTON SOLD BY RYUT PER MAUND.								Expense of Cleaning Cotton by the Foot-roller or Rehtee, per Maund.	Expense for Conveying Cotton to the nearest Port for Shipment, i. e. Calcutta.	Average Produce of Cotton per Beegah.		Quantity of Land under Cultivation with Cotton.	Probable Extent of Cultivation in event of an Increased Demand.
		Cotton Cleaned,		Uncleaned Cotton,											
		With Advances.	Without Advances.	With Advances.	Without Advances.			Uncleaned.	Cleaned.						
Etawah -	Rs. a. p.	8 7 -	9 - -	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Minimum per 100 Mds. to Calcutta :	Mds. sr. c.	Mds. sr. c.	Acres.	Acres.		
Delhie Jakhun -	8 8 -	8 7 -	8 8 -	2 14 10	3 - -	1 4 -	1 4 -	1 4 -	Rs. 93 12 -	2 10 0	0 30 0	8,328	11,900		
Lucknah -	9 - -	8 12 -	9 - -	3 - -	3 4 -	1 4 -	1 4 -	1 4 -	Maximum 112 8 -	2 10 0	0 30 0	4,263	6,394		
Rawuen -	8 12 -	8 10 -	8 12 -	2 14 -	2 15 -	1 4 -	1 4 -	1 4 -	Average - 103 2 -	3 0 0	1 0 0	5,771	6,815		
Belah -	9 - -	8 14 -	9 - -	2 14 -	3 - -	1 - -	1 - -	1 - -	or - Rs. 1 - 6	2 10 0	0 30 0	4,686	5,857		
Phuppond -	8 4 -	7 12 -	8 4 -	2 8 -	2 12 -	1 - -	1 - -	1 - -	per Maund.	2 0 0	0 26 4	6,800	8,500		
Oreyah -	9 - -	8 10 -	9 - -	2 10 -	3 - -	1 2 -	1 2 -	1 2 -		2 0 0	0 26 4	9,432	10,090		
TOTAL - - -	61 8 -	59 8 -	61 8 -	19 9 10	20 15 -	7 14 -	7 14 -	7 14 -		16 0 0	5 12 8	10,396	11,390		
AVERAGE - -	8 12 6½	8 8 -	8 12 6½	2 12 10	2 15 10½	1 2 -	1 2 -	1 2 -		2 11 7	0 30 5½	49,676	60,946		

Zillah Etawah Collectorship,
7 September 1848.

(True copy.)

(signed) C. Allen,
Officiating Secretary to the Government of the N. W. Provinces.

(signed) J. A. Craigie,
Officiating Collector.

I.
Bengal and
North Western
Provinces.

Bengal and
North Western
Provinces.

(No. 88, in No. 1500 of 1849.)

STATEMENT exhibitory of the Amount to which the Cultivation of Cotton can probably be extended in the Districts comprising the Agra Division, with Prices at which it can be procured in a Cleaned or Uncleaned State at the Marts, or from the Growers, with Memorandum of Cost of Transit to nearest Port for Shipment.

DISTRICTS.	Price of Cleaned Cotton per Maund.	COTTON SOLD BY RYOT, PER MAUND.				Expense of Cleaning Cotton by the Foot-roller, or Rehitee, per Maund.	Expense for conveying Cotton to the nearest Port for Shipment, i. e. Calcutta.	Average Produce of Cotton per Acre, or Beegah.		Weight used.	Quantity of Land under Cultivation with Cotton.	Probable Extent of Cultivation in the event of Increased Demand.
		Cleaned Cotton,		Uncleaned Cotton,				Cleaned.	Uncleaned.			
		With Advance.	Without Advance.	With Advance.	Without Advance.							
Muttra -	<i>Rs. a. p.</i> 1st Class 7 2 8 2d " 6 3 5	<i>Rs. a. p.</i> - -	<i>Rs. a. p.</i> 6 13 - -	<i>Rs. a. p.</i> - -	<i>Rs. a. p.</i> 2 4 2 -	<i>Rs. a. p.</i> 1 - - -	Per maund 1 - - to Calcutta.	<i>Ms. s. c.</i> 2 8 0 per acre.	<i>Ms. s. c.</i> - -	80 rupees to the seer.	<i>Acres.</i> 108,042	<i>Acres.</i> 253,759
Agra -	7 6 2	Something less than the bazar rate				1 - -	Per maund 1 - - to Calcutta.	1 15 0 per acre.	-	80 ditto	87,000	120,000
Furruckabad	1st Class 13 - - 2d " 12 - - 3d " 11 - -	Something less than the prevailing market rate				- 8 -	Per maund - 8 4 to Calcutta.	From 1 0 0 to 2 0 0 Per beegah of 3,600 square yards.	-	96 ditto	14,148	21,156
Mynpoory -	7 8 -	-	7 8 -	-	-	- 8 -	Per maund - 5 4 to Mirza- pore	-	7 0 0 Per beegah of 3,600 square yards.	80 ditto	29,290	Can be in- creased ac- cording to demand.
Etawah -	8 12 6½	8 8 -	8 12 6½	8 12 10	2 15 10½	1 2 -	Per maund 1 - 6 to Calcutta.	2 11 7 Per beegah of 3,600 square yards.	0 30 5½	103 ditto	49,676	60,676

Commissioner's Office, Agra Division, }
10 November 1848.

(True copy.)

(signed) C. Allen,
Officiating Secy. to the Govt. of the N. W. P.

(signed) W. H. Tyler,
Officiating Commissioner.

(No. 39, in No. 1500 of 1849.)—(No. 411 of 1848.)

From *R. Lowther*, Esq., Commissioner of the Allahabad Division, to the Sudder Board of Revenue, North Western Provinces, Agra.

Revenue.

Gentlemen,

WITH reference to the orders of Government, N. W. Provinces, dated the 12th February last, No. 529, and its enclosure, received with your secretary's docket of the 18th idem, No. 79, respecting the extent to which India might be capable of supplying cotton in the event of an increased demand for it; I have the honour to submit, as per annexed list, returns from the district officers, containing the information required by the Honourable Court of Directors.

Commissioner's Office,
Fourth Division, Allahabad,
12 August 1848.

I have, &c.
(signed) *R. Lowther*, Commissioner.

(True copy.)

(signed) *C. Allen*,
Officiating Sec. to the Govt. of the N. W. Provinces.

(No. 40, in No. 1500 of 1849.)—(No. 53 of 1848.)

From *R. Montgomery*, Esq., Collector of Cawnpore, to *R. Lowther*, Esq., Commissioner of Revenue, Fourth Division, Allahabad.

Sir,

I HAVE the honour to acknowledge the receipt of your circular letter of 28th February, No. 8, transmitting copy of a letter from Mr. Secretary Thornton to the address of the Secretary, Sudder Board of Revenue, dated 12th idem, requesting information as to the extent to which India might be capable of supplying cotton in the event of an increased demand, and also a second letter from you, dated 6th instant, forwarding copy of a letter, No. 75, from the Secretary to Government of India, Home Department, dated 15 January last, and its enclosures, which contained certain queries regarding cotton, replies to which were solicited.

Circular, No. 9.

2d. In reply to the first letter, I am unable to state the amount of cotton which might be supplied from this country, but my deputy collector, Mr. Bruce, has had considerable experience, having formerly speculated largely in cotton, and having turned much of his attention to the subject; as he will furnish a separate report, I will briefly reply to the queries transmitted by the Court of Directors.

Query 1. What is the price of cotton, freed from seed, at the principal mart or marts in your district?

Answer. The price of cotton freed from seed is from nine to ten rupees per maund, and has varied little from that price during the last two years.

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?

The uncleaned cotton (termed kupas) is sold from 13 to 16 seers in the rupee. Advances are occasionally given, but more frequently they are not made in this district. If advances are given, the banker charges 60 per cent. interest; he gets one-fourth advance on the rate at which cotton is sold when it is ready for the market. For instance, if 16 seers is the rate at which cotton is sold, the cultivator gives the banker 20 seers. This is termed "sewai."

3. What is the expense of cleaning cotton by the churka, or foot-roller, or by any other method which may be in use?

The expense is one rupee per maund. The churka is the only machine used.

4. What are the expenses of conveying cotton to the nearest port for shipment?

Supposing Calcutta to be the port, it is one rupee per maund for the mere carriage in unscrewed bales.

5. What is the average produce of cotton per beegah or acre?

Three maunds of kupas per beegah or six per acre. From this, one maund of pure cotton, and two maunds of benowla or seed is produced per beegah.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried in the event of an increased demand?

1,01,111 acres of land was under cultivation, according to the measurement effected in 1839-40. I imagine this amount could easily be doubled, was there any encouragement to extend the cultivation.

I.
Bengal and
North Western
Provinces.

The beegah in this district is 2,450 square yards, or 50625 of an acre.
The seer is $97\frac{1}{2}$ sicca weight; the maund consists of 40 seers; the punseree, or five seers, of 48·7 rupees.

I have, &c.
Cawnpore Collector's Office, (signed) *R. Montgomery*, Collector.
15 March 1848.

(True copy.)
(signed.) *C. Allen*,
Officiating Sec. to the Govt. of the N. W. P.

(No. 41, in No. 1500 of 1849.)—(No. 52 of 1848.)

From *J. G. Bruce*, Esq., Deputy Collector of Cawnpore, to *R. Lowther*, Esq., Commissioner of Revenue, Fourth Division, Allahabad.

Sir,

I HAVE the honour to acknowledge the receipt of your letters, No. 8 of the 28th ultimo, and No. 9, dated the 6th instant. The first transmitting a copy of one from Mr. Secretary Thornton to the address of the Sudder Board of Revenue, N. W. Provinces, and requesting that I would furnish the information called for respecting the extent to which India is capable of supplying cotton in the event of an increased demand for it; and the second transmitting a copy of the letter, No. 75, from the Secretary to the Government of India, Home Department, dated the 15th January last, and of the enclosure which accompanied it, respecting the information required by the Honourable the Court of Directors regarding the quantity of cotton produced in India.

2d. Having been employed at the late commercial residency of Etawah and Calpee from its first establishment in 1808 till its dissolution with the cession of the Company's trade in 1834, as accountant and supervisor of the Company's cotton investment, and having on the abolition of the residency been engaged myself extensively for four years subsequently in the purchase of cotton on my own account, as well as on commission for several agency houses in Calcutta, and having been accustomed to form and submit one general estimated average of the cotton intended for consignment to the London and China markets, upon the prices annually prevailing at the several marts in the N. W. Provinces, I am humbly of opinion it would be more to the purpose to reply in the same manner to the queries propounded by the Honourable the Court of Directors, than were I merely to confine my information to any one single district or mart.

3d. I have the honour to annex below my replies opposite to the queries contained in the despatch of the Honourable the Court of Directors.

Query 1. What is the price of cotton, freed from seed, at the principal mart or marts in your district?*

Reply. The price depends principally upon the demand and produce. In an average season, however, cotton at the place of produce, fit for the London market, may be estimated at seven Co.'s rupees per maund of 80 Co.'s rupees to the seer, equal to 14 s. for 80 lbs. The cotton fit for the China market may be estimated at one rupee less per maund.

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?

The ryot who can manage his cotton cultivation without the aid of an advance realises about six rupees a maund of the seer of 96 Company's rupees for his clean cotton.

The poorer classes of cultivators, however, have little concern with the sale of their cotton. After the seed is sown at the commencement of the periodical rains, they require the aid of the village bunneahs or bankers to enable them to weed and attend to their cotton and other crops, which, from the time the assistance is granted, become in a manner mortgaged to the bunneahs, at least they have the entire disposal of the produce. Owing to this circumstance, the kupas, or cotton with the seed, as it is gathered is made over to them, who separate the cotton from the seed, and sell it to repay themselves. The cultivators in this case seldom realise more than Rs. 4. 8. for their maund of clean cotton.

3. What is the expense of cleaning cotton by the churka or foot roller, or by any other method which may be in use?

Properly speaking, the separation of the cotton from the seed in this country costs nothing; whether the work is performed by the cultivator, or the person to whom he sells it unfreed, the price the seed realises when sold more than covers the amount of labour.

4. What are the expenses of conveying cotton to the nearest port for shipment?

Including the expense of cleaning and screwing the cotton, gunnies and other packing materials, boat-hire, export duty, and everything else, an average of about Co.'s Rs. 2. 3. per maund of 80 Company's rupees to the seer, to Calcutta from the place of produce.

5. What

5. What is the average produce of cotton per beegah or acre?

Generally a maund per beegah, 96 Company's rupees to the seer, or two maunds eight seers the acre, where the cultivation is properly attended to.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried in the event of an increased demand?

In the year 1818, the largest quantity of cotton (*vide* my address to you of the 2d April 1846) was exported by sea from Calcutta, viz.; near 1,200,000 maunds; we may therefore, I think, safely calculate upon an equal quantity having been produced and retained in that year for the consumption of the N. W. Provinces as well as Bengal. If my data be tolerably correct, there must have been about 2,400,000 beegahs of land under cotton cultivation in that year; what it may now amount to, must be considerably less; but to what extent it could be carried, in the event of an increased demand, it will not be difficult to tell.

4th. Having replied to the questions in the despatch of the Honourable the Court of Directors, I shall now proceed respectfully to offer a few more general remarks on the same subject, which my experience and recent inquiries of native wholesale dealers in the article suggest.

5th. You must have observed during the last twelve months how strenuously the Honourable the Court of Directors, the Board of Control, and even the House of Commons, have been memorialised, urged, and solicited by the Liverpool, Manchester, Lancashire, Hull, and other commercial and manufacturing associations, regarding the increased cultivation of cotton in India.

6th. From the purport of these memorials, as well as the remarks of the press in India, the real merits of the question appear to be wholly misunderstood. I beg leave to observe that on this side of India, neither the land-tax nor the transit dues are tremendous, as asserted by the "Calcutta Press;" nor do they amount to anything like 75 per cent. on the average value of cotton, as represented by the "Hull Advertiser." What they may be at Bombay or Madras I cannot exactly say, but I am inclined to suppose far from what they have been designated. All the amelioration that would be required, it appears to me, would be to place the Bundelkund cotton and the produce of the right bank of the Jumna generally upon the same footing as that of the Doab; namely to levy the duty on the exportation of the cotton from Calcutta. The evil of making the Bundelkund cotton and that of the right bank of the Jumna pay the duty before it can be boated, is, in fact, a tax upon the land under cotton cultivation.

7th. If the associations and manufacturers who have been memorialising and soliciting the authorities in England regarding the increased cultivation of cotton in India, actually wish for it, and will guarantee that all that may be produced through my exertions in this country, will be taken by them, and paid for here, and will send out responsible agents to receive charge of the cotton, either here or at Calcutta, I will engage and undertake to produce for them as much real good merchantable cotton as they may require, and not to cost them when landed in England more than about 3 $\frac{1}{2}$ d. per lb., which I think very moderate, considering the Indian cotton generally realizes from 4 $\frac{1}{2}$ d. to 5 $\frac{1}{2}$ d. per lb. in England.

8th. The decrease of cultivation everywhere in India may be ascribed solely to the want of a demand for the article. If the Government, even through the means of advances to the cultivators increased it, to meet the solicitations of the associations in England, I apprehend that as soon as those advances ceased, the culture would again revert to its former standard, owing to the poverty of the landholders and ryots.

9th. If the associations be of opinion that the indigenous cotton, of a good staple and quality, be desirable at my estimated average of 3 $\frac{1}{2}$ d. per lb., the most eligible plan, it appears to me, would be to purchase it through the beoparies, or native cotton merchants, as was done before for the Company when they traded in the article, and to leave the beoparies to get it from the cultivators as they formerly did, and now do, to the extent of their wants, through the village bunneas or bankers. If the native merchants found the speculation advantageous (very little indeed satisfies them), they would, I am sure, take proper measures to encourage the cultivators. By the adoption of this plan, cotton of an uniform good quality may readily be obtained from every part of the N. W. Provinces, through the native cotton merchants, without the risk of incurring balances. If the half of the amount of cotton which is now used in England was thus transferred to India, it would not only do the country an immense deal of good, but yield the Government an export duty of about Rs. 55,00,000.

I have, &c.

Cawnpore, Collector's Office,
15 March 1848.

(signed) J. G. Bruce, Deputy Collector.

Countersigned by
(signed) R. Montgomery, Collector.

(True copy.)

(signed) C. Allen,
Offg. Secy. to the Govt. of the N. W. P.

I.
Bengal and
North Western
Provinces.

(No. 42, in No. 1500 of 1849.)—(No. 76 of 1848.)

From *C. W. Kinloch*, Esq., Collector of Futtehpore, to *R. Lowther*, Esq., Commissioner of Revenue, Fourth Division, Allahabad.

Sir,

WITH reference to the correspondence noted in the margin,* I have now the honour to submit the information required by the Honourable the Court of Directors relative to the cultivation of cotton in this district. The beegah used in replying to the Court's queries is the settlement beegah, of which 2. 6. 4. are equivalent to an acre. The maund in use is the district maund, which contains 40 seers, each seer weighing 96 Co.'s rupees. The rupee used is the Company's rupee, commonly known as "cherah shahee."

Query 1. What is the price of cotton, freed from seed, at the principal mart or marts in your district?

The price varies considerably in some parts of the district. Five seers are sold for the rupee, whilst in others no more than three and a half seers are obtainable for the same price. The average price may be stated at one rupee for four seers two chittacks.

2. At what price does the Assamee sell his cotton, cleaned or uncleaned, and with and without advances?

The average price at which the Assamee sells his cleaned cotton is at the rate of four seers and two chittacks the rupee. The average rate at which uncleaned cotton is sold is 15 seers the rupee. When advances are made to the Assamees, which is not often the case, there is a trifling fall in the price demanded for the article, whether cleaned or uncleaned.

3. What is the expense of cleaning cotton by the churka, or foot roller, or by any other method which may be in use?

The only method of cleaning cotton in use in this district is by means of the common country churka. The charge ordinarily made is at the rate of one rupee for one maund of cotton. In some parts of the district payment is made in kind. In such cases a maund of grain is the usual remuneration for cleaning the same quantity of cotton.

4. What are the expenses of conveying cotton to the nearest port for shipment?

Cotton has never been an article of export from this district; the expense of conveying it to Calcutta, which is the nearest port for shipment, cannot be stated.

5. What is the average produce of cotton per beegah or acre?

The average produce of raw cotton per beegah is one maund eight seers seven chittacks, which gives three maunds 11 chittacks per acre.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried in the event of increased demand?

The quantity of land on which cotton was grown last year was 71,092 beegahs, 17 $\frac{1}{2}$ or 29,745 acres. It is probable, in the event of an increased demand for cotton, that about 20,000 beegahs more land would be brought under cultivation.

Futtehpore, Collector's Office,
21 June 1848.

I have, &c.
(signed) *C. W. Kinloch*, Collector.

(True copy.)
(signed) *C. Allen*,
Officiating Sec. to the Govt. of the N. W. P.

(No. 43, in No. 1500 of 1849.)—(No. 64 of 1848.)

From *J. J. W. Taunton*, Esq., Collector of Humeerpore, to *R. Lowther*, Esq., Commissioner, Fourth Division, Allahabad.

Sir,

I HAVE the honour to acknowledge the receipt of your circulars, Nos. 8 and 9, dated respectively the 28th February and 6th March, with enclosures, requesting information as to the extent to which India might be capable of supplying cotton in the event of an increased demand.

2d. In

* Commissioner's Circular, No. 9, dated 6 March 1848; Commissioner's Letter, No. 50, dated 20 April 1848; Commissioner's Letter, No. 53, dated 24 April 1848.

2d. In reply, I beg leave to remark, that this part of the country already produces large quantities of cotton, and the amount might be materially increased if the demand for a further supply continued steady, and the price remunerative. From the accompanying papers you will observe, that in the portion of this district under my own immediate charge, there are near 80,000 beegahs at present under cultivation, and upwards of 200,000 more capable of producing cotton, a large portion of which would in all probability be used for that purpose, provided there was a greater demand for it.

3d. Replies received from the different teehseeldars to the queries framed by the Honourable the Court of Directors are herewith submitted.

I have, &c.
Humeerpore, Collector's Office, (signed) J. J. W. Taunton, Collector.
22 April 1848.

PERGUNNAH HUMEERPORE.

1. What is the price of cotton freed from seed at the principal mart or marts in your district?

Cotton is sold at Rs. 6. to 8. per maund of 40 seers, and 96 Company's rupees to the seer; the payment is made in Company's rupees.

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?

The ryots who receive an advance sell their cotton from Rs. 1. 4. to Rs. 1. 8. per maund less than the bazaar rate.

3. What is the expense of cleaning cotton by the churka or foot-roller, or by any other method which may be in use?

One Company's rupee per maund for cleaning cotton by churka.

4. What are the expenses of conveying cotton to the nearest port for shipment?

Nine annas and six pie (including eight annas per maund for rowannah), for conveying cotton to Mirzapore.

5. What is the average produce of cotton per beegah or acre?

In a good season 35 seers of cotton per beegah.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried in the event of an increased demand?

9,557 beegahs of cotton under cultivation; a further extent of 8,000 beegahs could be brought under cultivation.

(signed) J. J. W. Taunton, Collector.

PERGUNNAH SOOMEIRPOOR.

1. What is the price of cotton freed from seed at the principal mart or marts in your district?

Cotton is sold at eight rupees per maund of 40 seers, and 90 Company's rupees to the seer; the payment is made in Company's rupees.

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?

The ryots on receiving advance sell their cotton from Rs. 7. 10. to Rs. 7. 14. per maund, and those that take no advances at the bazaar rate. The uncleaned cotton is sold with advance at Rs. 1. 10. to Rs. 1. 14. per maund, and without advance at two rupees per maund.

3. What is the expense of cleaning cotton by the churka or foot-roller, or by any other method which may be in use?

One Company's rupee per maund for cleaning cotton by churka.

296—Sess. 2. K 2 4. What

I.
Bengal and
North Western
Provinces.

4. What are the expenses of conveying cotton to the nearest port for shipment?

One rupee per maund (including a duty of eight annas) for conveying cotton to Mirzapore.

5. What is the average produce of cotton per beegah or acre?

Fifteen seers of cotton in a beegah.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried, in the event of an increased demand?

The land under cultivation with cotton is 16,300 beegahs. A further extent of 10,000 beegahs could be brought under cultivation.

(signed) J. J. W. Taunton, Collector.

PERGUNNAH MONDHA.

1. What is the price of cotton freed from seed at the principal mart or marts in your district?

Cotton is sold at *Sree*. Rs. 8. 10. per maund of 40 seers, and 90 Company's rupees per seer; the batta on Sreenuggur rupees is 6 to 10 per cent. for Company's rupees.

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?

The ryots sell their cotton with advance at Rs. 7. 8. to Rs. 7. 12. per maund, and those that take no advance at the bazaar rate, the payments are made in Sreenuggur rupees. The ryots receive no advance for kuppas or uncleaned cotton on this pergunnah.

3. What is the expense of cleaning cotton by the churka or foot-roller, or by any other method which may be in use?

One Company's rupee per maund for cleaning cotton by churka.

4. What are the expenses of conveying cotton to the nearest port for shipment?

Rs. 1. 2. 5. per maund, duty included, for conveying cotton to Mirzapore.

5. What is the average produce of cotton per beegah or acre?

Ten to 25 seers of cotton per beegah.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried, in the event of an increased demand?

The land under cultivation with cotton is 25,000 beegahs. A further extent of 165,466 beegahs 13 biswahs could be brought under cultivation.

(signed) J. J. W. Taunton, Collector.

PERGUNNAH RATH.

1. What is the price of cotton, freed from seed, at the principal mart or marts in your district?

Cotton, according to quality, is sold at Rs. 6. 8. to Rs. 8. 4. per maund of 40 seers, and 101 Kuldar rupees to the seer; the payments are made in Sreenugger rupees; the batta on the latter is 6 to 10 rupees per cent. for Company's rupee.

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?

The ryots who receive an advance sell their cleaned cotton, the first sort, at Rs. 7. 5. to Rs. 7. 12. per maund; second sort, from Rs. 6. 4. to Rs. 7. 4. per maund; and the third sort, from Rs. 5. 4. to Rs. 6. per maund. Those who take no advance, sell their cotton at the market price, and their kuppas from Rs. 2. 1. to Rs. 2. 10. per maund. Those that take advances

advances sell their uncleaned cotton, first sort, from *Rs.* 2. to *Rs.* 2. 4. per maund; second sort, *Rs.* 1. 12. to *Rs.* 1. 14. per maund; third sort, at *Rs.* 1. 8. per maund.

3. What is the expense of cleaning cotton by the churka or foot-roller, or by any other method which may be in use?

Twelve annas to *Rs.* 1. 4. per maund, for cleaning cotton by churka.

4. What are the expenses of conveying cotton to the nearest port for shipment?

From seven annas and six pie to eight annas and eight pie (inclusive of rowannah) for conveying cotton, per maund, to Mirzapore.

5. What is the average produce of cotton per beegah or acre?

From 11 seers to one maund of cotton per beegah.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried in the event of an increased demand?

The land under cultivation with cotton is 17,279 beegahs. A further extent of 3,769 beegahs could be brought under cultivation if required.

(signed) J. J. W. Taunton, Collector.

PERGUNNAH PUNWAREE.

1. What is the price of cotton, freed from seed, at the principal mart or marts in your district?

Cotton is sold at *Rs.* 7. 8. to *Rs.* 8. Sreenuggur rupees per maund of 40 seers, of 126 Sreenuggur rupees to the seer. The uncleaned cotton is sold at two Company's rupees to *Rs.* 2. 4. per maund. The batta on Sreenuggur rupees is 6 to 10 per cent. for Company's rupees.

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?

The ryots sell their cotton with advance at *Rs.* 5. 14. to *Rs.* 7. 8. per maund; and those that take no advance at the market rate, the payments are made in Sreenuggur rupees. The ryots, on receiving advance, sell their uncleaned cotton at *Rs.* 1. 12. to *Rs.* 2. 4. per maund.

3. What is the expense of cleaning cotton by the churka or foot-roller, or by any other method which may be in use?

Twelve annas to one rupee per maund for cleaning cotton by churka.

4. What are the expenses of conveying cotton to the nearest port for shipment?

Rs. 1. 12. 7., duty included, per maund, for conveying cotton from Punwaree to Mirzapore.

5. What is the average produce of cotton per beegah or acre?

Ten seers to one maund, and five seers of cotton per beegah.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried, in the event of an increased demand?

The land under cultivation with cotton is 19,784 beegahs and $9\frac{1}{2}$ biswahs. A further extent of 22,737 beegahs $8\frac{1}{2}$ biswahs could be brought under cultivation.

(signed) J. J. W. Taunton, Collector.

(True copy.)

(signed) C. Allen,
Officiating Secy. to the Govt. N. W. P.

I.
Bengal and
North Western
Provinces.

(No. 44, in No. 1500 of 1849.)—(No. 50 of 1848.)

From *F. B. Pearson*, Esq., Deputy-collector, Calpee, to *R. Lowther*, Esq., Commissioner,
Fourth Division, Allahabad.

Sir,

I HAVE the honour to acknowledge the receipt of your circulars, No. 8, dated 28th February, and No. 9, dated 6th March last, with their enclosures, regarding the cultivation of cotton, and to furnish, as desired, concise replies to the queries proposed by the Honourable the Court of Directors.

2d. The towns of Calpee and Koonch are the principal and only considerable marts in my district. The weight of the seer used in the Calpee cotton market is equal to that of *Co.'s Rs. 96.*; the seer of the Koonch cotton market is equal to *Co.'s Rs. 101. 9. 7/5.* in weight. A maund, therefore, bought at Koonch would be sold in Calpee as one maund three seers and a quarter, but that frauds in weighing, and loss on the road, reduce the difference, in point of fact, to two seers or one seer and a half. The value of this excess, however, is sufficient to balance the expense incurred by merchants in conveying the maund from Koonch to Calpee. A clear profit of about two annas per maund is generally looked for by the traders, and this is the average measure of the difference in the real price of the maund in the one and the other market. The nominal price is affected by the rate of discount on the Balasay rupee, which in Koonch is the medium of general barter, and is the basis of cotton accounts, both in Koonch and Calpee, though in the latter town during the last two years an uniform rate of five per cent. discount exclusively on the price of cotton has been established by the agreement of the merchants, while in the former the price of cotton continues to be affected, like that of other articles of traffic, by the varying value of the Balasay rupee in the money market. The average price of cotton per maund at Koonch, during the season now ending, has been *Rs. 8. 14.* of the Balasay currency, or *Co.'s Rs. 8. 11.*, and at Calpee *Rs. 9. 4.* Balasay, or *Co.'s Rs. 8. 13.* according to the best calculation that I have been able to make. In the margin*, by way of illustrating the variations in the price of cotton, as determined by the fluctuating relations of demand and supply, and the extent to which the nominal price is affected by the vicissitudes of the Balasay currency, I have set down the average price current of cotton per maund in the Calpee market, reckoned in Balasay and Kaldar rupees in each of the last nine years, during which period the highest price has been so high as Balasay-rupees 17. 4., and the lowest so low as Balasay rupees 7 per maund, and the Balasay rupee has been discounted at 27 per cent. and has borne a trifling premium.

3d. More than two-thirds and less than three-fourths of a maund of uncleaned cotton is seed; a ryot, therefore, selling a maund of uncleaned cotton will obtain for it more than a fourth, and less than a third of the market price of cleaned cotton; if he sells his cotton cleaned he will get the market price for it. It is more usual for the ryots to sell their cotton uncleaned, probably in order to satisfy the zemindar's demand for land-rent without delay, or because their other labours in the field leave them no time for cleaning it, and there may be no hands in their homes which can be applied to that work. The better class of cultivators who are able to clean it at home, sell it cleaned, and gain the value of the seed in addition to that of the cotton. The ryots are not in the habit of receiving advances from the cotton merchants, though they sometimes make bargains with them before their crops are ready.

4th. There is no other method of cleaning cotton in vogue in these parts beside the churka; one rupee is the wages paid for extracting a maund of clean cotton from kupas in the towns; the expense is doubtless not so much in the villages; where the cost of the churka is less, and where service is remunerated with grain instead of a money payment, and domestic labour is brought into play. But the expense in the towns only equals three-fourths of the value of the seed, which sells at the rate of a maund and a half per rupee, giving a profit to the purchaser of uncleaned cotton, independent of the market price of cleaned cotton.

5th. I now

*. Average Price Current of Cotton per Maund in the Calpee Market.

Y E A R.	Mean Price per Maund, Balasay.	Mean Rate of Discount.	Price in Company's Rupees.
	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>
1839-40	13 13 -	11 13 6	12 5 7
1840-41	15 3 -	14 3 8	13 4 6
1841-42	12 8 -	14 6 6	10 14 10
1842-43	11 4 -	8 11 6	10 5 1
1843-44	10 - -	8 9 -	9 3 5
1844-45	10 10 -	6 3 7	10 - -
1845-46	10 3 -	3 11 6	9 13 2
1846-47	8 13 -	5 - -	8 8 2
1847-48	9 4 -	5 - -	8 13 -

TO PROMOTE THE CULTIVATION OF COTTON IN INDIA. 79

5th. I now proceed to detail the expenses per maund of conveying cotton from Koonch to the bank of the river Jumna at Calpee, from Calpee to Mirzapore, and thence to Calcutta.

1. From Koonch to Calpee.			2. From Calpee to Mirzapore.			3. From Mirzapore to Calcutta.		
	Rs.	a. p.		Rs.	a. p.		Rs.	a. p.
Brokerage - - -	-	- 3	Brokerage - - -	-	- 3	Boat-hire and churundar -	-	7 6
Weighing - - -	-	- 3	Weighing and coolie hire -	-	- 3	Insurance - - -	-	4 6
Coolie-hire - - -	-	- 1	Packing and thread - -	-	- 3	Insurance peon - - -	-	- 9
Packing and thread - -	-	- 3	Porterage to Ghat - -	-	- 3	Pilotage, &c. - - -	-	1 -
Peons and gomashta - -	-	1 -	Agency commission - -	-	- 9	Agency commission - -	-	- 9
Hoondeeana - - -	-	1 3	Boat-hire and churundar -	-	4 -	Hoondeeana - - -	-	5 6
Cart-hire - - -	-	3 -	Government duty and fee	-	9 9			
Churundar and Chowkeedar	-	- 6	of Durkhast Nuvees.					
			Hoondeeana - - -	-	1 6			
			Insurance and peon - -	-	1 9			
			Gomashta and peon - -	-	1 6			
	Rs.	- 6 7		Rs.	1 4 3		Rs.	1 4 -

It will be observed that all the expenses here specified may not in all instances be incurred, and if the cotton were despatched straight to Calcutta, instead of first stopping at Calpee and then at Mirzapore, the repetition of sundry items would be avoided. In point of fact, however, none of the merchants (with the exception of Messrs. Hamilton, Higginson & Co.) send cotton direct to Calcutta. Perhaps I should mention that the cost of the cloth in which it is packed is included in the market price of cotton.

6th. The beegah of this district measures 45, and contains 2,025 square yards; two beegahs and six biswas are reckoned to a statute acre. The average produce of kupas per beegah is Government maunds 2. 8., which would give a return of 25 seers of cleaned cotton per beegah, or Government maund 1. 18. per statute acre.

7th. An area of *Bgs.* 48,413. 18. was sown with cotton this year (1255, F. S.), and the tehseeldars report that *Bgs.* 23,977. 13. more would be available for the cultivation of the plant. As, however, no kind of land is unsuitable for the purpose, except such as is low or exposed to inundation, there can be little doubt that if an increased demand should raise the price of the article, a much greater extent of land might be devoted to its production.

Calpee,
Deputy-Collectorship,
9 June 1848.

I have, &c.
(signed) F. B. Pearson,
Deputy-Collector.

(True copy.)
(signed) C. Allen,
Officiating Secretary to the Government N. W. P.

(No. 45, in No. 1500 of 1849.)

CALPEE.

Question.—What is the price of cotton freed from seed, at the principal mart or marts in your district?

Answer.—Kalpee and Koonch are the principal marts. In the former, cotton is sold at 8/13, and in the latter at 8/11 per maund.

At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?

Cleaned cotton is sold at the market price above stated, and uncleaned about one-third of the price of cleaned cotton.

The ryots do not receive advances from the cotton merchants, though they sometimes make bargains with them before their crops are ready.

What is the expense of cleaning cotton by the churka or foot-roller, or by any other method which may be in use?

Churkas are the only machines in use in this district. The expense for extracting a maund of clean cotton is one rupee in the towns; and in the villages labour is remunerated with grain instead of money.

What are the expenses of conveying cotton to the nearest port for shipment?

From Koonch to Calpee at 6 annas 7 pie per maund; from Calpee to Mirzapore at Co.'s Rs. 1. 4. 3. per maund.

From Mirzapore to Calcutta, at Co.'s Rs. 1. 4. per maund.

I.
Bengal and
North Western
Provinces.

What is the average produce of cotton per beegah or acre?

The average produce of kuppas per beegah is 2 maunds 8 seers, and of cleaned cotton 25 seers.

What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried on, in the event of an increased demand.

An area of 48,413 beegahs 18 biswas was sown with cotton in 1847-48. The cultivation might be extended to as much more, if the price of the article should be raised by increased demand.

N.B. The weight of the seer in the Calpee cotton market is Co.'s Rs. 96, and in that of Koonch is Co.'s Rs. 101. 9. 7 $\frac{1}{2}$; 40 seers of either is equal to a maund. The prices of cotton referred to in the answers are computed in the Company's currency.

The beegah is equal to 2,025 square yards; 2 beegahs 6 biswahs are equal to a statute acre.

(True copy.)

(signed) C. Allen,
Officiating Secretary to the Government N. W. P.

(No. 46, in No. 1500 of 1849.)—(No. 376 of 1848.)

From *M. P. Edgeworth*, Esq., Officiating Collector of Banda, to *R. Lowther*, Esq.,
Commissioner of Revenue for the Fourth Division, Allahabad.

Sir,

WITH reference to Circular No. 9, dated 6th March last, regarding cotton cultivation, I have the honour to submit a statement showing the average price of cotton and produce per acre, as estimated, and the cost of carriage from this district to the great mart of Mirzapore. I have no means of ascertaining the cost thereon to Calcutta.

2d. It does not appear to be the practice to sell the uncleaned cotton, but the cost of cleaning is estimated at 12 annas the maund. It is done by the common churka of the villagers.

3d. With regard to the sixth query, I believe that all the land in the district, except that which is periodically overflowed, and constitutes but a very small portion, is capable of growing cotton; and that about one-third of that might be actually cultivated in any given year, the other two-thirds lying fallow, or undergoing the usual rotation of crops.

4th. The estimates of quantity produced per acre are very vague, as also the amount under cotton cultivation, which is not even perfect for the year of measurement, as the tables of cultivation were not drawn out in the Settlement Office for all the pergunnahs.

5th. It is very customary to sow the cotton along with sun (*Hibiscus Cannabinus*) and arhur (*Cojanus vicolar*); the former is cut before the cotton comes, or the latter succeeds it; sometimes even Indian corn and joar are mixed; the plant is very carefully weeded and hoed at first, but the collection of the cotton is most slovenly; it is often allowed to fall on the ground, and is always more or less mixed with the withered leaves and other dirt.

6th. I beg to refer you to Mr. Rose's report on this subject, dated 8th April 1846; a much more accurate account of the quantity of cotton produced in the district could be obtained from the Customs department, as very little, if any, leaves the district by any route but that of the Jumna to Mirzapore.

I have, &c.

(signed) *M. P. Edgeworth*,
Officiating Collector.

Zillah Banda,
20th June 1848.

(True copy.)

(signed) C. Allen,
Officiating Secretary to the Government N. W. P.

(No. 47, in No. 1500 of 1849.)

STATEMENT showing the Average Price of Cotton and Produce per acre, and the Cost of Carriage from the District of *Banda to Mirzapore*.

PERGUNNAH.	Price per Maund of 3,200 Tolas, from the Zemindars, of Cleaned Cotton.						Quantity Produced in each Acre.	Charges of Conveyance per Maund of 320 Tolas.				Quantity of Land in which Cotton is cultivated,	
	When Purchases were made by Government.			At Present.				From Mart to Ghats.		From Ghats to Mirzapore.		According to Settlement Records.	According to Tehseeldar's Statement.
	Maximum.	Medium.	Minimum.	Maximum.	Medium.	Minimum.							
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.		Mds. b. c.	Rs. a. p.			A. R. P.	A. R. P.
Banda	12 - -	11 - -	10 - -	7 - -	6 - -	1 1 2	To Chilla Ghat	- - -	Chilla	- 4 -	- -	- -	
Pylancee	- - -	- - -	- - -	9 8 -	8 12 -	1 4 0	- - -	- - -	Gogoollee	- 6 -	- -	9,845 0 0	
Simownee	- - -	- - -	- - -	7 - -	5 8 -	0 11 4	To Chilla or Ongasee	- - -	Ongasee	- 3 -	26,572 0 0	- -	
Ongasee	- - -	- - -	- - -	7 8 -	6 - -	0 13 12	To Ongasee Ghat	- - -	- - -	- - -	23,100 0 0	- -	
Dursenda	- - -	- - -	- - -	6 - -	5 - -	1 0 0	Rajapore is the mart for these three pergunnahs		- - -	- - -	33,974 0 0	43,733 0 0	
Cheeboo	20 - -	17 - -	14 - -	8 - -	7 8 -	0 20 0			- - -	Rajapore	- 2 -	22,608 0 0	- -
Tirohun	- - -	- - -	- - -	8 - -	7 12 -	2 10 0	- - -	- - -	- - -	- - -	20,707 0 0	11,472 0 0	
Dudausa	- - -	15 - -	- - -	8 - -	7 - -	0 30 0	To Rajapore	- - -	- - -	- - -	- -	30,000 0 0	
Seenda	- - -	13 - -	- - -	9 - -	8 - -	2 0 8	{ From Bisenda to Banda - " Bisenda to Rajapore " Nuryaee to Rajapore		- - -	- - -	22,023 0 0	7,802 0 0	
									- 2 6 -	- 3 6 -	- 5 -		

Zillah Bandah, }
20 June 1848.

(signed)

M. P. Edgeworth,

Officiating Collector.

(True copy.)

(signed) C. Allen,

Officiating Secretary to Government, N. W. P.

I.
Bengal and
North Western
Provinces.

I.

Bengal and
North Western
Provinces.

(No. 48, in No. 1500 of 1849.)—(No. 374 of 1848.)

From *E. T. Tyler*, Esq., Officiating Collector of Allahabad, to *R. Lowther*, Esq.,
Commissioner, Allahabad Division.

Sir,

Revenue.
28 February 1848.
6 March 1848.
9 June 1848.

IN acknowledging your circulars, Nos. 8, 9, and 21, of dates as noted in the margin, upon the subject of the growth of cotton, and the extent to which this district might be capable of supplying that staple in the event of an increased demand for it, I have the honour, agreeable to the orders of the Court of Directors, conveyed in Mr. Secretary Bushby's letter, No. 75, dated 15th January last, to Mr. Secretary Thornton's address, which accompanied your circular, No. 9, above noted, to make the following report:—

1st. There are no great marts for cotton in this district.

2d. The growth of cotton is comparatively small.

3d. The produce of this district is, it may be said, not exported; if so, it is in amount insignificant, and can hardly be said to be an exportation.

2d. In reply to the six queries put by the Honourable Court, I have had a statement drawn up which embraces all the points under review.

3dly. You are aware that this district may be said to be in three divisions—1st Doab; 2d. Gungapar; 3d. Jumnapar; of the three divisions the soil of the latter is far better adapted for the growth of cotton; however, from the reports of the local officers the cultivation is only extended on the appearances of the favourableness of the season, and the amount of produce also appears very changeable and uncertain, and that the crops, some seasons, are hardly worth picking.

4th. There are two kinds of cotton produced in this district, viz., Rudea or Dasee cotton and Munwa; the former is cultivated with less trouble and difficulty, but the latter is the better quality and gives a larger produce; however, the expense of labour and attention to its growth is nearly one-third greater.

5th. There are only five merchants in Allahabad (*vide* margin *) who trade in cotton; but it seems not above 500 maunds have been purchased of this district's growth for exportation, ‡ but that the greatest quantity comes from Bundelcund and Agra provinces, also Western Provinces.

6th. The freights of this staple cannot be given hence to Calcutta, for it seems parties merely send the goods as far as Mirzapore or Ghazeepore, and the rate is seven rupees per 100 maunds to the former place, and 14 rupees per 100 maunds to the latter, whilst the insurance, during the rains, is at *Rs.* 1. 4. per 100 rupees, and 12 annas per 100 rupees during the hot and cold weather.

7th. The weights are as follows:—

1 punsaree equals 535 rupees;

8 punsarees „ 1 maund, or 4,280 rupees, or
equal to 107 lbs. English.

Allahabad Collectorship,
5 July 1848.

I have, &c.
(signed) *E. F. Tyler*,
Officiating Collector.

(True copy.)

(signed) C. Allen,
Officiating Secretary to the Government, N. W. P.

* Koowur Sen, Bunseedhur, Hurbelass, Ram Rutton, Sekhram and Sookhun Mull.

(No. 49, in No. 1500 of 1849.)

PERGUNNAHWAR.

STATEMENT of the Extent of Cultivation and Probable Amount of Produce of Cotton, with Prices per Maund, for Zillah Allahabad.

Tehseeldar.	Pergunnah.	Price of Cotton, Cleaned and Uncleaned, according to the Market Rates.				Price of Cleaned and Uncleaned Cotton, at the rate sold by Ryots.		Charges in taking out Cotton Seed.		Hire of Conveyance to Ghaut.		Amount Produce per Beegah.		Quantity of Land at present Cultivated by Cotton.	Quantity of Land fit for the Cultivation of Cotton.	Number of Beegahs per Acre.	How many Seers to the Maund, and how many Rupees to the Seer.	Rupees in Current Rency.	
		Name of Mart.	Price of Uncleaned Cotton per Maund.	Price of Cleaned Cotton per Maund.	Price of Uncleaned Cotton per Maund.	Price of Cleaned Cotton per Maund.	By Churka or Wheel.	By other Process.	Name of nearest Ghaut.	Amount Hire.	Highest Produce.	Lowest Produce.	Beeg. Bis.	Beeg. Bis.	Beeg. B. D.	Seers Rs.	Company's rupees.	ditto.	ditto.
Doab -	Chail -	Chail -	Sujai Ankul -	-	10 -	-	-	8 -	-	-	-	3 maunds	30 seers	401 10	1,000 0	1 15 9	40 100	Company's rupees.	
			Huseea -	-	10 8 -	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ditto -	Kurra -	Kurra -	Kharpah -	-	11 -	-	-	-	-	-	-	-	-	-	-	-	-	-	
			Munjunpore -	-	11 8 -	3 10 -	11 8 -	1 -	-	Rancepoor -	- 2 -	1 20 0	0 20 0	1,636 0	2,045 0	1 15 9	40 100	ditto.	ditto.
On the right bank of the Jumna.	Kurra -	Kurra -	Kurraee -	-	11 12 -	-	-	-	-	-	-	1 35 0	0 25 0	1,463 0	2,077 10				
			Uthurbun -	-	-	-	-	-	-	-	Kunkurabad -	- 1 3 -	1 35 0	0 25 0	2,750 0	3,137 10	1 15 9	40 100	ditto.
Ditto -	Araill -	Araill -	Kurma -	-	11 4 -	3 14 -	11 2 -	1 2 -	-	-	-	4 0 0	1 0 0	10,000 0	29,000 0	1 15 9			
			Barra -	-	10 10 -	3 13 -	10 8 -	1 -	-	-	-	-	-	-	-	-	-	-	-
Ditto -	Khyraghur -	Khyraghur -	Barra -	-	11 4 -	3 8 -	10 -	1 -	-	Bulooa Ghat on the Jumna.	- 8 -	1 8 0	0 16 0	6,000 0	5,714 0	1 15 9	40 100	ditto.	
			Sirsa -	2 10 8 -	7 12 -	2 10 -	8 -	1 -	-	Sirsa -	- 5 -	3 & 5 mds.	35 & 36 srs.	26,540 0	8,500 0	1 15 9	40 100	ditto.	
On the left bank of the Ganges.	Secundra -	Secundra -	Phoolpoor -	2 6 -	10 -	2 6 -	7 12 -	14 -	-	Ganges Ghat	- 6 -	-	-	-	-	-	-	-	
			Phoolpoor -	4 8 -	10 -	4 8 -	10 -	-	-	-	-	-	-	5 0 0	16 seers	100 0	1,000 0	1 15 9	40 100
Ditto -	Jhoossee -	Jhoossee -	Bulnapore and Jhoossee.	3 -	10 -	3 -	10 -	-	-	Jhoossee Ganges Ghat.	-	3 0 0	6 & 8 seers	200 0	500 0	1 15 9	40 100	ditto.	
			Rewaree -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ditto -	Moh -	Moh -	Ismael -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ditto.
			Sooram -	3 13 -	11 6 -	-	-	1 -	-	-	-	-	-	-	-	-	-	-	-
Ditto -	Khas -	Khas -	Nowab Gunge	-	12 8 -	-	-	-	-	-	-	-	-	-	-	-	-	-	ditto.
			Cotzhee -	-	10 -	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ditto -	Mirzapore Chowhara.	Mirzapore Chowhara.	Doorga Gunge	4 -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ditto.
			Doorga Gunge	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
														Beeg. Bis. 40,000 10 or 27,089 acres of 29,881 acres					

REMARKS.—From the Returns, it seems that 49,089 beegahs, or 27,689 acres, were last year in cultivation, and 29,881 acres more could be brought into cultivation; thus 57,570 acres, which on an average year would give above a lac of maunds of cotton. This, however, would hardly supply the demands of the district itself. In the five last pergunnahs no cotton is grown at all, as the soil is bad for the production of this staple.

Allahabad Collectorship,
5 July 1848.

(signed) E. F. Tyler,
Offg. Collector.

(True copy.)
(signed) C. Allen,
Officiating Secretary to Government, N. W. P.

I.
Bengal and
North Western
Provinces.

(No. 50, in No. 1500 of 1849.)—(No. 235 of 1848.)

From *E. A. Reade*, Esq., Commissioner of the Benares Division, to Sudder Board
of Revenue, North Western Provinces, Agra.

Gentlemen,

IN reply to your secretary's docket, No. 51, dated 18th February last, with its enclosures, I have the honour to submit the replies from the collectors in this division (as noted in the margin*) to the queries of the Honourable the Court of Directors, regarding the present state and facilities of extending the cotton cultivation in India.

2d. In this division the cultivation of cotton is little more than nominal. It is most commonly mixed up with other crops; it is nowhere carefully tended; in many places it is an object of superstitious aversion, and often where the plant contrives to struggle to maturity, it is left, after being stripped of a portion of the bolls enough to supply present domestic purposes, to be devoured by cattle.

3d. As a preliminary, to endeavour to give a summary of the replies of the local officers to the queries of the Honourable Court, it is necessary to record the average weights and measures of land in each district.

DISTRICT.	Beegah Square Yards.	Maund in lbs. Avoirdupois.
Goruckpore - - - - - { West	3,136	} 98
- - - - - { East	3,840	
Azimghur - - - - -	3,136	84
Jounpore - - - - -	ditto	98
Mirzapore - - - - -	ditto	82 $\frac{1}{2}$
Benares - - - - -	ditto	82 $\frac{1}{2}$
Ghazeepore - - - - -	ditto	82 $\frac{1}{2}$

4th. The average in the margin † is the price of cotton cleaned from seed in the principal markets of each district. I should add, that it is founded partly on the collector's returns, and partly on other sources of information.

5th. Where retail of home produce is uncertain and accidental, the difficulty of estimating the price at which the cultivator sells his cotton cleaned or uncleaned is apparent. Probably *Rs. 2. 14.* uncleaned, and 11 rupees for cleaned cotton per maund of 84 lbs. avoirdupois is pretty correct.

6th. The expense of cleaning by the churka, which is pretty nearly the same implement throughout the division, and the labourer at which is ordinarily paid in grain, may be estimated at *Rs. 1. 1.* per maund of the same standard.

7th. Cotton is only exported for shipment from Mirzapore, which is the great emporium of cotton on the Ganges; the collector reports that the cost, including insurance and all charges, is *Rs. 1. 4.* per maund, and his information is doubtless correct.

8th. In estimating the average produce of cotton per beegah, or acre, it must be borne in mind that the produce of the better sort is 50 per cent. less than that of the inferior kind in a beegah of 3,136 square yards. The estimated produce of the former is 80 lbs., and 150 of the latter, two-thirds of the former and four-fifths of the latter being seed.

9th. The estimate of the quantity of land occupied by cotton cultivation, owing, as above described, to intermixture with other crops, or to its being laid along the skirts of fields,

* Goruckpore, 29th May 1848, No. 174, and Enclosure; Azimghur, 3d July 1848, No. 262; Jounpore, 13th July 1848, No. 306; Mirzapore, 6th June 1848, No. 121; Benares, 18th July 1848, No. 221; Ghazeepore, 30th June 1848, No. 239.

† DISTRICT.	Average Price.		Maund in lbs. Avoirdupois.
	R.	As.	
Goruckpore - - - - -	12	8	98
Azimghur - - - - -	10	8	84
Jounpore - - - - -	10	8	98
Mirzapore - - - - -	8	14	84
Benares - - - - -	10	8	84
Ghazeepore - - - - -	11	-	84

fields, must unavoidably rest upon conjecture. In Benares the area, after careful inquiry, is estimated at about 2,000 acres, and probably this is about the extent of cultivation in each of the districts of Azimgurh, Jounpore, Mirzapore, and Ghazee-pore. But in Goruck-pore, I estimate the area not to be less than 15,000 acres, and the result of these calculations assigns 25,000 acres to the whole division.

I.
Bengal and
North Western
Provinces.

10th. It will be seen that in all the districts of this division the collectors are clearly of opinion that their districts are as to cotton non-productive, and never will be otherwise. The district soils are not considered suited to its growth with any hope of success, and enhancement of price therefore in the market would not induce the villager to substitute it for any other object of agricultural labour. I have no doubt that this opinion is correct, except as regards the district of Goruckpore.

11th. The collector assumes that there is no indigenous cotton in that district, and reasons that if the district were adapted to cotton there would have been a larger cultivation, considering the distance from the great marts and the difficulties of transit. He has, however, submitted the report of Mr. Cooke, a practical agriculturist, resident on the western side of his district, who, it may be observed, has had experience also in Bundelcund. I request attention to the paper he has drawn up on the subject, and to which I have added other papers on the same matter, some of which I have reason to believe, especially the report of Mr. Blount, the American planter, on specimens of indigenous cotton in the Goruckpore district, have never been submitted to the Board.

12th. Mr. Blount's experimental cultivation in 1843 and 1844 was a failure, but it should be borne in mind that he almost entirely confined his experiment to American cotton and American process of agriculture. His operations, too, were restricted to a single spot, a piece of available Government land. Making some allowance for professional bias, I am still of opinion that the proposition contained in paragraph 8 of his report, No. 63, dated 1st October 1844, to introduce the ryotwar system of cultivation, giving advances and securing repayment of them in produce, as is now done with our poppy cultivation, is far better adapted to secure extension of cultivation and improvement in the crop produced than experimental farms, limited to a particular spot in a district 130 miles by 80.

13th. The collector has not the leisure and does not reside in or near the localities suited to cotton cultivation. In central Goruckpore, and there, alas! the experiment was attempted, there is no indigenous cotton. Mr. Blount's report of samples refers, it will be seen, to the eastern and western pergunnahs of the district. But there are deputy opium agents located east and west of Goruckpore, whose agency, stimulated by a premium or excess of produce, or superior quality, would soon satisfactorily determine whether the district is or is not adapted to the growth of cotton of a quality which will compete with similar produce of other countries in the market. We have these facts before us, that 30 years ago, poppy cultivation in this district was considered a dubious speculation, and that not only do Government now gain nearly 30 lakhs of rupees by present operations, but all classes of the people, even Brahmins, have put their hands to it, and that only 12 years ago, the sugar-cane was limited to one portion of the district; that the project of extension upon the equalization of the duties on imported sugar, at first received with jeers by mercantile men, and superstitious objections by native agriculturists, has, despite of subsequent temporary over speculation and its evils, resulted in marvellous success, dissipating the heavy anxiety of financial pressure from a rapid increase of assessment to the extent of 15 lakhs of rupees, contemporaneous with a diminished expenditure on the part of Government.

14th. With these facts, and the statements of practical men annexed to this letter, the opinion I have ventured to express in the last paragraph of the accompanying memorandum, dated 24th January 1843, remains unchanged.

Commissioner's Office, Fifth Division,
Benares, 16 August 1848.

I have, &c.
(signed) E. A. Reade,
Commissioner.

(True copy.)
(signed) C. Allen,
Officiating Secretary to the Government N. W. P.

(No. 51, in No. 1500 of 1849.)—(No. 174 of 1848.)

From H. C. Tucker, Esq., Collector of Goruckpore, to E. A. Reade, Esq., Commissioner,
Fifth Division, Benares.

Sir,

WITH reference to your letter of the 6th March last, No. 17, and annexure, I have the honour to submit the following replies to the queries of the Honourable Court of Directors.

1. The average price at the principal marts is from 12 rupees to 13 rupees per maund of 24 gundahs to the seer, equal to 60 avoirdupois pounds.

296—Sess. 2.

L 3

2. The

I.
Bengal and
North Western
Provinces.

2. The ryots occasionally plant a little kupas with Ruhur maize, &c. &c. The produce is very small, about one-fifth of cotton to four-fifths seed. The Brahmins make their strings with the cotton, and cattle are fed with the seeds. None is ever sold, the small quantity produced being required for domestic use. In Perowna some cotton is grown and sold at about 18 seers of 24 gundahs (27 avoirdupois pounds) uncleansed, and two or three seers more; with advances cleaned, it sells at about $3\frac{1}{2}$ seers ($5\frac{1}{2}$ pounds) per rupee.

3. What little is cleaned is either cleaned by hand or churka by the ryots themselves. If by a hired labourer, he gets either the seed or two seers of grain, or four pice for his trouble. About $1\frac{1}{2}$ pounds of cotton can be cleaned in the course of a day.

4. No export.

5. In Perowna $2\frac{1}{2}$ maunds (150 pounds) are the average produce of statute acre. About one-fifth is cotton and four-fifths seed.

6. About 1,300 acres are under cotton in Perowna; thousands of acres might be cultivated, were there a sufficient demand, and a sure market not dependent upon European and American fluctuations.

7. The amount of imported cotton is about 3,627,000 pounds. About 60,000 pounds are re-exported to Nipal, also some cloth and twist.

I have also the honour to transmit copy of a memo. by Mr. Cooke, one of the most practical agriculturists in the district. He would like to superintend another cotton experiment, but it would not appear advisable for Government to engage in another such attempt, where cotton is not produced naturally. Had the district been adapted for cotton, there would have been a larger cultivation of it, considering our great distance from the great marts, and the number of rivers and other difficulties which the cotton has to encounter on its way to us.

Goruckpore Collector's Office,
29 May 1848.

I have, &c.
(signed) H. C. Tucker, Collector.

(True copy.)

(signed) C. Allen,
Officiating Secretary to the Government, N. W. P.

(No. 52, in No. 1500 of 1849.)

From W. Cooke, Esq., to Henry Carre Tucker, Esq., Collector of Goruckpore.

Sir,

I HAVE received your letter, No. 107, dated 11th March 1848, requesting replies to several questions regarding the growth and sale of cotton in the district, and of its agricultural prospects; I beg to send such replies to these questions as I am able to give, imperfect as they are.

I remain, &c.
Bustee, Goruckpore, 13 March 1848. (signed) W. Cooke.

Question 1. What is the price of cotton, freed from seed, at the principal mart or marts in your district?

Answer. The principal marts in the district of Goruckpore for cotton freed from seed are Mehndowl Gai Ghat, Bilwa Bazar, Doobowlia, Gopalpore, Burhul, Piprowl, and others, of which perhaps the largest import market is Mehndowl. At present the price is about 12 rupees per maund of 25 gundahs to the seer for good cotton wool, which is about 20 per cent. better than Calcutta Bazar weight; the price, however, varies according to quality and the seasons of the year; when the season has been unusually wet the price rises a little, if it remains moderately dry the price falls somewhat; heavy rains destroy the cotton in the pod on the plant. Cotton wool, however, is bartered by retail dealers more frequently in exchange for cotton twist or thread from the common churka. If the cotton twist be of moderately fine manufacture, the cotton dealer by retail gives two seers of cotton wool for one seer of twist or thread. If the twist is of coarse and thick manufacture, then for one seer of thread $1\frac{1}{2}$ seers of cotton wool are exchanged.

2. At what price does the ryot sell his cotton, cleaned or uncleansed, and with or without advances?

Kuppas, *i. e.*, cotton with the seed not separated, sells in the growing districts, such as Bundlekund, &c., for R. 2. 12. to three rupees per maund, averaging nearly 25 per cent. better than Calcutta Bazar weight; if advances are made to the ryot, then perhaps six to eight annas per maund less than such prices are given.

3d. What

3. What is the expense of cleaning cotton by the churka or foot-roller, or by any other method which may be in use?

The native small churka, or otherwise called ootunee, is used by one or two people according to the make of the instrument; if worked by two people, six puseres, or 30 seers of kuppas, or cotton with seed, is cleaned per diem, of which, when the seed is extracted, remains 10 seers of cleaned cotton wool and 20 seers of seed or benowla. The wages of the two people working this instrument is paid for, not by money, but in grain, equalling in quantity the clean cotton wool separated from the seed. Thus two people will get ten seers of grain and barley mixed, which, selling at one maund or one maund five seers per rupee in the cotton districts, give as wages, say four annas, or two annas each man or woman employed, which, on each seer of cleaned cotton, is about two pice per seer, or about $4\frac{1}{2}$ pice English computation. However, the cotton seed, or benowla, is very valuable as food for plough cattle, and sells for $1\frac{1}{2}$ maunds per rupee in the districts where it grows.

4. What are the expenses of conveying cotton to the market of most note on the boundary of the district?

Cotton wool is imported into Goruckpore district principally from Bundelkund, and the expense of conveying thence to this district stands about R. 2. 8. to three rupees per maund, every charge included. Cotton in Bundelkund may be had from seven to eight rupees per maund.

5. What is the average produce of cotton per beegah or acre?

In Bundelkund the average produce of cotton with the seed is about eight maunds per beegah, or about 10 or 11 maunds per acre; cotton wool separated from the seed will therefore be one-third that quantity.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried in the event of an increased demand?

In Goruckpore there is but a very trifling portion of land sown with cotton; but I hazard an opinion that it might be made to compete comparatively with other districts, notwithstanding the failure of the experiment made by the American planter. All that is required is encouragement and a ready market for the ryots to take their produce to for sale, where they may meet with no disappointment; ryots in general in a district like Goruckpore are not speculative, and will not risk a cultivation of anything for the chance of a market; but I do believe if encouragement were held out to them in a similar manner as is practised in the cultivation and produce of poppy by Government, there would be no want of cotton grown in the Goruckpore district, nor could one easily mention the limit to its production, which would rise or fall with the demand.

7. What is the average wholesale price of imported cotton?

The average price on wholesale of imported cotton in the Goruckpore district, at present is about 12 rupees per maund, by retail about $3\frac{1}{2}$ seers per rupee.

8. What is the estimated annual consumption of imported cotton?

I would say that about 75,000 maunds of imported cotton is consumed in the district of Goruckpore.

7,350,000 lbs. av.

Remarks.—In the cotton districts, cotton is sometimes sown in fields slightly intermixed with Indian corn, oordee, and urhur. In Goruckpore and other eastern districts which I have myself seen, this is likewise practised; yet whole fields unmixed with any other crop may be seen growing cotton alone; cotton is principally grown on high elevated soils, free from all deposit of rain water. I am informed by cotton dealers that cotton wool now selling at 12 rupees per maund used formerly, 15 years ago, to sell for from 22 rupees to 25 rupees per maund.

This fall in price may account for the reduction of cultivation and production in British India. The import of cotton twist of English manufacture has much effect likewise in the economy of the gherusht or ryot, whose wife and female relatives formerly used to make all the twist cotton intended for family consumption for wearing apparel. The farmer grew his own cotton, his family spun it, and they used to be clad by the article grown by them; now they get a finer article from England ready made to their hands at perhaps as cheap a price. Much English cotton twist is imported from Calcutta into Goruckpore and makes its way into Oudh, where it is worked up by thousands of johlahs or weavers by the hand, woven into cloth at Tandeh and other places, once famous for Indian fabrics. At the prices mentioned for cotton wool, ruling in the growing districts, no great profit, if any profit at all, will fall to the lot of any merchant transporting it to Calcutta, when the excessive costs of such transit are considered, and the risks by fire and water, besides the uncertainty of markets, ruled by English prices current, dependant so much on the supplies from America, which perhaps exports the article into England at a smaller price than the Indian grower and exporter can afford to do.

There are two kinds of cotton grown in India, the kuppas and surma or munooa; the former has a strong thick fibre, the latter fine and soft; the former is a stouter plant and produces more per beegah; the surma or munooa does not yield nearly so much. Over production checks in time, by fall in prices, all articles of commerce; and there can be no

I.
Bengal and
North Western
Provinces.

doubt that cotton wool from India has suffered from this alone. America has competed successfully against British India, and its cotton wool found more favour in the European markets than that of India latterly; yet it is an understood matter in India, among the natives, that cloth wove with twist manufactured in England, generally of American produce, is not so lasting as that which is spun and wove from cotton wool produced in India. The capital which used formerly to come into India in exchange for its cotton wools, has been absorbed latterly entirely by America; by this India has been an extreme loser. While British India has been burdened with a transit duty, and an export duty on its produce of cotton, besides is burdened with a tax on the land producing such cotton, America is perhaps free from all such burdens, and can therefore afford to sell her cotton wools for a less price than British India can; the competition is unequal.

(signed) *W. Cooke.*

(True copy.)

(signed) *N. Willard,*
Deputy Collector.

(True copy.)

(signed) *C. Allen,*
Officiating Secretary to Government, N. W. P.

(No. 53, in No. 1500 of 1849.)—(No. 262 of 1848.)

From *J. Muir, Esq.,* Collector of Azimghur, to *E. A. Reade, Esq.,* Commissioner,
Fifth Division, Benares.

Sir,

In reply to your circulars, No. 17 of 6th March and No. 32 of 17th ultimo, I have the honour to state, that it appears from the reports of the tehseeldars, that scarcely any cotton is produced in this district, the little that is grown being sown among other crops, such as Urhur, and the scanty produce being used by the cultivator for domestic consumption. Questions 2, 3, 4, of the Honourable Court cannot be answered. The reply to the 5th is, that from several quarters the produce is described as scanty and indifferent, and the soil is considered by the people of Nizamabad unsuited to this crop. In reply to the 6th question, I suppose it may be gathered from what is stated above, that no increase in the cultivation can reasonably be looked for. In reply to the 1st question, the price of imported cotton, where the tehseeldars give it, is as per margin *. In Muhul the cotton imported is said to be bartered for thread.

Azimghur Collectorship,
3 July 1848.

I have, &c.
(signed) *J. Muir,*
Collector.

(True copy.)

(signed) *C. Allen,*
Officiating Secretary to the Government, N. W. P.

(No. 54, in No. 1500 of 1849.)—(No. 306 of 1848.)

From *M. C. Ommanney, Esq.,* Collector of Jounpore, to *E. A. Reade, Esq.,* Commissioner,
Fifth Division, Benares.

Sir,

I HAVE the honour to acknowledge the receipt of your circular, No. 17, dated 6th March last, forwarding a memorandum in the revenue department, No. 14, from the Honourable Court of Directors.

2d. Having received all the returns from the tehseeldars, I subjoin replies to the questions seriatim.

1. Price of cleaned cotton on an average appears to be 11 rupees for the best, and 10 rupees per maund, the next description of cotton wool.

2. Cotton is not a staple or product of the district; "Munooa" is grown and sown mixed with urhur, but the produce is poor, and is sown for individual and local consumption, not for remuneration or profit.

3. The

* Azimghur, 1st quality, Rs. 10 per maund, of 80 seers weight, 84 lbs. avoirdupois.

2d ditto - Rs. 9. 8. - - - ditto - - - ditto.

Ghasee - - - - - Rs. 8. 15. 3. - - - ditto - - - ditto as above.

3. The reply is involved in the foregoing.

4. Ditto. There is no export; cotton is brought and sold at Jounpore, and at Shahgunj for local consumption at the former place; the expenditure is represented as about 15,800 maunds, at the latter 30,000; the seer being 96 Company's rupees. This cotton is supplied chiefly from Bundelcund. A small inconsiderable quantity finds its way from Mirzapore direct to Rampoor, a small mart on the Mirzapore road.

Jounpore Collectorship, 13 July 1848. I have, &c.
(signed) M. C. Ommanney, Collector.

(True copy.)
(signed) C. Allen,
Officiating Secretary to the Government, N. W. P.

(No. 55 in No. 1500 of 1849).—(No. 121 of 1848.)

From W. E. Money, Esq., Collector of Mirzapore, to E. A. Reade, Esq., Commissioner of Revenue, Fifth Division, Benares.

Sir,

I HAVE the honour to acknowledge the receipt of your circular letter, No. 17, dated 6th March last, annexing copy of a despatch from the Honourable the Court of Directors, dated 10th November 1847, on the subject of cotton produce.

2. In reply, I beg to state that no cotton is grown in this district for export; some of the ryots sow small quantities, intermixed with other grain (urhur, &c.), for their own consumption. By far the greater portion, however, is supplied from the town at very low rates. I am informed that about 12 or 15 years ago, when cotton was in greater demand, a few hundred beegahs used to be sown towards the Rewah frontiers, and the western parts of the district; but since the fall in the price of cotton the cultivation has been given up, owing to the labour and expense attending it, requiring it to be weeded three times, and the produce per beegah is generally small and uncertain.

3. Mirzapore is well known to be the largest cotton market on this side of India; large quantities are received annually from Oomrawuttee, Nagpoor, Bundelcund, Agra, Furruckabad, and other places, and are usually despatched from hence to Ghazeeepore, Patna, Moorshedabad, and Calcutta. The Deccan trade, however, has been on the decline for the last three years, as will be seen from the imports noted in the margin.* This information has been obtained from the Customs' office. There is at present a stock of nearly four lacs of maunds in the bazar, a larger quantity than there has been for many years, and more is daily arriving; the demand is languid, and the price is very low, and falling; the best Banda could be landed in Calcutta, cleaned and picked for shipment, in half-screwed bales, at Co's. Rs. 7. 12. to 10 rupees. Ten years ago such cotton would have sold for Co's. Rs. 16. The abolition of the export duties led people to expect a fair demand, but the state of things in China has stopped shipment, and the cotton trade of this side of India is but a wreck of what it was, and unless some change takes place cotton will cease to be an export. The internal consumption in this district is small as there are no manufactories.

* Y E A R.			Cotton.
			Maunds.
1845-46	-	-	3,51,810
1846-47	-	-	2,50,754
1847-48	-	-	1,80,906

4. In conclusion, I beg to subjoin brief replies to the queries put by the Honourable the Court of Directors.

1st. What is the price of cotton, freed from seed, at the principal mart or marts in your district?

Mirzapore is the principal mart, and the wholesale price of cotton, after deducting commission, exchange and brokerage, is as follows:

										Per Maund of 80 Sicca Weight
WESTERN COTTON:										Rs. a. p.
Agra	-	-	-	-	-	-	-	-	-	7 12 -
Bundelcund	-	-	-	-	-	-	-	-	-	8 - -
Furruckabad	-	-	-	-	-	-	-	-	-	7 14 -
SOUTHERN COTTON:										
Nagpore	-	-	-	-	-	-	-	-	-	8 14 -
Oomrawuttee	-	-	-	-	-	-	-	-	-	8 10 -
Saugor	-	-	-	-	-	-	-	-	-	7 - -

I.
Bengal and
North Western
Provinces.

2d. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?

The ryots do not sell; the produce being small, they appropriate it to their own use.

3d. What is the expense of cleaning cotton by the churka or foot roller, or by any other method which may be in use?

The churkee is used for cleaning cotton by the cultivators themselves.

4th. What are the expenses of conveying cotton to the nearest port for shipment?

The expense of conveying cotton in country boats to Calcutta, including insurance and other charges, averages about *R.* 1. 4. per maund.

5th. What is the average produce of cotton per beegah, or acre?

Supposed to be two to two-and-a-half maunds (kupas or cotton with seed) per acre; the produce entirely depends upon the rain and the care bestowed upon its culture.

6th. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried, in the event of an increased demand?

There are no lands specially set apart for cotton cultivation in this district.

Mirzapore Collectorship,
6 June 1848.

I have, &c.
(signed) *W. E. Money*,
Collector.

(True copy.)

(signed) *C. Allen*,
Officiating Secretary to the Government, N. W. P.

(No. 56 in No. 1500 of 1849.)—(No. 221 of 1848.)

From *D. F. M'Leod*, Esq. Collector of Benares, to *E. A. Reade*, Esq., Commissioner for the Benares Division.

Sir,

I HAVE the honour to acknowledge the receipt of your letters noted in the margin,* requiring replies to queries respecting the cultivation of cotton, conveyed by the Court of Directors in their revenue letter, No. 14, of the 10th November 1847, and proceed to furnish the information required, so far as I am able, or the circumstances of the district permit. The following are the standards adopted in the subjoined remarks:

1st. The Rupee.—The Company's rupee weighing a tola of 180 grains troy.

2d. The Maund.—The maund of 40 seers, each seer weighing 80 Co.'s Rs. or tolaks, 35 seers being thus equal to 72 lbs. avoirdupois.

3d. The Beegah.—The standard beegah of the North Western Provinces, measuring 3,025 square yards, or five-eighths of an English acre.

Query 1. What is the price of cotton, freed from seed, at the principal marts in your district?

Answer. There are no places in this district which can be regarded as cotton marts.

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advance?

The selling rates of cotton freed from seed, however, at the principal markets of the interior, and in the city of Benares, average from about $3\frac{1}{2}$ seers to about four seers per rupee, or from 10 to 12 rupees per maund; some of the inferior kinds from Agra and the westward, however, sell as low as *Rs.* 7. 8. per maund.

3. What is the expense of cleaning cotton by the churka, or pot-roller, or by any other method which may be in use?

The simplest form of hand churka is the instrument universally employed in this district for cleaning cotton, and none other is known. These are made up at a cost of two or three annas each, and last even for years. As the operation is invariably performed by the household of the cultivator, it is difficult to say what is the expense of effecting it; about $2\frac{1}{2}$ seers, however, of cotton are cleaned in a day by one person, and should a churka have to be borrowed, it appears to be the usage to pay over to the owner some portion of the seed, varying from $1\frac{1}{4}$ seers to half of the seed separated during the day.

4. What are the expenses of conveying cotton to the nearest port for shipment?

The nearest large port to this is Mirzapore, the great entrepôt of the Deccan, and a large part of Upper India, and to this place cotton may be conveyed for about 10 rupees per 100 maunds; to Calcutta, which is properly "the nearest port for shipment," the cost for conveyance is about 50 rupees per hundred maunds.

5. What

* No. 17, letters, dated 6th March 1848; No. 22, circular, dated 17th April 1848; No. 32, circular, dated 17th April 1848.

5. What is the average value of cotton per beegah, or acre ?

The cotton grown in this district is chiefly of a description here named mannooa, which is sown on high, dry, and sandy soils, and mixed with other rainy season crops, such as bajrah, urhar, &c. If the latter from any cause prove an indifferent crop, the cotton generally grows vigorously ; but if, on the contrary, the former be luxuriant, the cotton plants become choked and unproductive. On an average, however, this description would appear to yield from 20 seers to a maund per beegah. Besides this, however, there is another description of cotton, named rahria, which is sown almost exclusively by koerees, and other classes who raise garden produce, and requires irrigation. This description appears to yield about double the quantity of the foregoing beegah.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried in the event of an increased demand ?

The quantity of land now cultivated with cotton is as follows:—

	MANNOOA.	RAHRIA.	TOTAL.
Pergunnahs on the north of the Ganges - - - -	2,760	75	2,835
Pergunnahs on south side of the Ganges - - - -	250	62	312
TOTAL - - - -	3,010	137	3,147

and the quantity of additional land which might be made available for the purpose, in the event of the demand being increased, is estimated by the tahseeldars at about 3,350 beegahs for the mannooa, and 430 for the rahria. This estimate, however, is not, in my opinion, worthy of any confidence, as if circumstances were to require it, there is little doubt that a large portion of the soil of the district might be made to bear cotton.

2. This, however, has no pretensions to being, nor is it likely ever to become a cotton-producing district, as while the soils of Central and Southern India, and of other parts, appear to produce it with all the vigour of indigenous crop, the plant is here always, as far as my observation has extended, a puny and sickly looking one; and the result, as shown by the very insignificant quantity produced, confirms this opinion ; so that I cannot suppose that any returns from this district can be of any but a negative use.

3. This indeed you have yourself indicated in your 5th para., which directs an inquiry as to the quantity and prices of cotton imported into and consumed in the district. The quantity introduced has been a somewhat difficult matter to ascertain, and the results elicited by my inquiries can be regarded but as a rough approximation.

4. The estimated produce of the district is about 2,900 maunds per annum, in addition to which it is calculated that 2,500 maunds are imported into the pergunnahs lying north of the Ganges ; 1,200 maunds and 1,800 maunds into the city of Benares ; making an aggregate of cotton imported of about 5,500 maunds ; which, added to the produce of the district itself, seeing that there is no export, gives, for the entire consumption of the district, about 8,400 maunds per annum ; and the population of the entire district having lately been ascertained to be 7,41,426 persons, this gives an average consumption of $7\frac{1}{4}$ chittacks per head.

Benares Collectorship,
18 July 1848.

I have, &c.
(signed) D. F. M'Leod, Collector.

(True copy.
(signed) C. Allen,
Officiating Secretary to the Government, N. W. P.

(No. 57, in No. 1500 of 1849.)—(No. 239 of 1848.)

From P. C. Trench, Esq., Collector of Ghazeepore, to E. A. Reade, Esq., Commissioner of Revenue, Fifth Division, Benares.

Sir,

I HAVE the honour to reply to your circular letter, No. 17, of the 6th March, transmitting copy of a despatch from the Honourable Court of Directors, No. 14, dated 10th November 1847, on the subject of cotton produce, and proceed to answer the questions put in the latter.

1st. What is the price of cotton, freed from seed, at the principal mart or marts in your district ?

Ghazeepore is the principal mart, and cleaned cotton sold wholesale, or by the bale of $1\frac{1}{2}$ maunds, fetches according to quality 13 rupees per maund, 12 rupees per maund, Rs. 11. 8. per maund, Rs. 9. 8. per maund, being an average of Rs. 11. 8.

I.

Bengal and
North Western
Provinces.

The retail price of 1st quality cleaned cotton is $3\frac{1}{2}$ seers for one rupee; 2d quality cleaned cotton is $3\frac{1}{2}$ seers for one rupee; 3d quality cleaned cotton is $3\frac{1}{2}$ seers for one rupee.

2d. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?

This not being a district from which cotton grown in it is exported, the ryot has no cotton cleaned for sale, but of uncleaned cotton in such small sales as take place in the district, from 12 to 16 seers are sold for the rupee; cotton not being a staple produce of the district, people are not in the habit of giving advances for its cultivation.

3d. What is the expense of cleaning cotton by the churka or foot-roller, or by any other method which may be in use?

The mode of cleaning is by churka, two cylinders in juxta-revolution, by which process the seeds fall over on one side and the cleansed cotton is drawn through. This churka is worked by the hand, and generally by women; one hand can clean about eight seers in a day, for which the remuneration is one anna; if the payment be made in grain, two seers.

4th. What are the expenses of conveying cotton to the nearest port for shipment (or market of most note) in the boundary of this district?

There being no export the growers do not send cotton out of the district, but the cost of carriage would be for carting from twelve annas up to one rupee per diem for each cart, and conveyance by bullock from six annas to eight annas for each bullock per diem; either would go about 20 miles a day.

5th. What is the average produce of cotton per beegah, or acre?

No fields are given up entirely to cotton in this district, it is always cast in with some other crops; the cultivators in this district are for the most part koerees, and give themselves to the cultivation of the poppy as a more profitable crop than cotton.

6th. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried, in the event of an increased demand?

The climate and soil not being suitable, and cotton not being found a remunerating crop, there is, as before stated, no land exclusively given up to it, but there are 2,545 beegahs in the district in which cotton generally shares the soil with other crops. I find that the import of cotton for the last year into the district was 76,562 maunds.

Of this was sold	67,562	„
Leaving	9,000	„
Of that sold there went to Bullea	12,600	„
„ „ Zumaneah	6,000	„
„ „ Russerah	1,500	„
„ „ Syedpoor	4,500	„
„ „ Bahadoorgunge	450	„
	25,050	

The remainder is sold either at Ghazeepore or in the neighbourhood, or exported towards Shahabad, Azimghur, Goruckpore, and the western country.

Ghazeepore Collectorship, (signed) P. C. Trench,
30 June 1848. Collector.

Note.—The beegah, of which mention is made in my letter, contains 3,136 square yards. The maund is equal to $82\frac{1}{7}$ lbs. avoirdupois.

(signed) P. C. Trench,
Collector.

(True copy.)

(signed) C. Allen,
Officiating Secretary to the Government, N. W. P.

(No. 85, in No. 1500 of 1849.)

MEMORANDUM.—There are three descriptions of cotton grown in the district of Goruckpore:—

Koktee.—A species of nankeen is sown, after little previous tillage, in February, and is plucked in September and October following; it is an annual, but the people never renew its sowing in the same fields for two successive years. The cultivation of the koktee cotton is confined to Pergunnahs Shahjehanpoor and Sidhoa Jobuna, a tract of country of about 900 square miles.

Nurma.—If tended with care is triennial, and even quinquennial; its cultivation is generally in narrow strips round vegetable gardens, sugar-cane fields, and the like; it grows both in the baugur (silicious) and bâht (calcareous) soils, whereas koktee grows only in the latter. It is sown generally in June, and yields from October to April; it again renews leaf in June with the same result.

Dasee.—Is universal as to parts of the districts, but is usually grown in bangur soils; it is the cotton, as its name indicates, of the district; it is sown like urhur or grain in fields, with little previous culture, in June, and does not yield until the following April. It is an annual, blows only for a month or six weeks, and is then cut down.

Natives of intelligence consider that about one-sixth of the supply of this district is from home produce. The capabilities of the district for the growth of cotton are asserted and believed; but the general remark is, that care is only taken of it contemporaneously with the crops harvested in spring, after the cutting of which, the countless herds of cattle in this Hindoo-populated district, let loose upon the cornfields, destroy cotton plantations to such an extent as to render the speculation one of little profit and much risk.

Goruckpore is a district reclaiming itself from the waste, to which settlers from elsewhere are attracted by low rates of land and abundance of room. Hitherto the population have thought it essential to turn their first attention to the produce of grain; in the last seven years only they have been generally invited to the cultivation of sugar cane; no attempts have been made to improve their present careless mode of preparing the ground for cotton, nor to preserve effectually the plant, when raised, from depredation.

Mr. Blount's observations in person, during a residence of some days, and Mr. Finny's remarks explanatory of the soil and climate best suited for the successful experiment of cotton plantation, confirmed me in the opinion I have long held, that this district is worthy of being selected for the present experiment, in which so much interest is taken.

The humidity of the atmosphere, the absence of hot winds, the abundant and lasting dews, the rich vegetable mould, the undulating surface of the country, and the invariably plentiful supply of rain, enable me to anticipate success, the experiment in Bundelcund having as yet apparently, from the want of these natural peculiarities, been unsuccessful.

Mr. Blount is of opinion that it is inexpedient to commence upon forest land; I concur with him; it would involve great outlay; it would risk the health of the superintendent; it would take up much time.

Some years ago, by order of Government, all land which could be spared from the large areas of cantonments were directed to be marked off, and made available for revenue purposes; a plot of ground, 118 British acres in extent, was thus separated from the present cantonment, and farmed out at an assessment graduated from 75 to 101 per annum. I took the precaution of directing, at the revision of settlement, that if this land were ever required for Government purposes, the leaseholder should have no claim except to realise the crops actually standing, and that if he raised houses on the plot he should not be entitled to compensation.

This plot, near to Goruckpore, and two of the principal district thoroughfares, is now covered with fine crops, which will be cut in all March and April. Mr. Blount thinks well of the soil; a residence can be obtained for moderate terms in its vicinity, and it is the only eligible spot I know of in the neighbourhood.

The expense attending the experiment must be very much less than in Bundelcund, or indeed any other part of the country. In the present instance the amount of land revenue affected, should the experiment even prove a complete failure, will be 101 rupees for each year.

If the experiment succeed there are European and native speculators who will readily transfer the speculation to their grants; there is abundance of waste land; the district is intersected by numerous streams, several of which are navigable all the year round. The iron and copper of Nepal, and the choice timber of the inexhaustible Terai, are at hand, for the purposes of machinery and navigation.

Seven years ago natives in several parts of Goruckpore were averse to the cultivation of the sugar cane, from superstitious prejudices; and so short a time ago as January 1837, several Calcutta merchants believed my recommendations, of the eastern side of Goruckpore for sugar-cane speculation, were unsafe; there was not then in all Goruckpore 10,000 acres of sugar cane; and I estimate that there cannot be less now than 150,000 acres. Native superstition vanished at the sight of success; the sugar cane is cultivated with more care, too, as well as to far greater extent.

So with cotton, if once the speculation can indicate but a glimmering of success; if it can only be proved that it is worth the cultivator's while to cultivate, and fence in a field of cotton with care, it will become popular and extensive.

Goruckpore, 24 January 1843.

(signed) " " E. A. Reade, Collector.

(True copy.)

(signed) C. Allen,
Officiating Secretary to the Government, N. W. P.

I.
Bengal and
North Western
Provinces.

(No. 59, in No. 1500 of 1849.)—(No. 6 of 1843.)

From *M. Blount*, Esq., Government Cotton Planter, Goruckpore, to *E. A. Reade*, Esq.,
Collector of Goruckpore.

Sir,

I have the honour to forward a report of the samples of cotton from various parts of this district, sent from your office for my examination. I had taken a list of the villages, pergunnahs, &c., from which each sample came, expecting that there would be considerable difference in their quality; but, on examination, I find them so much alike, that a difference is scarcely perceptible in their qualities, except in two or three samples, which will be mentioned below. The staple of all the different samples are strong and fine, and not below the medium of short staple cottons in length.

2. Samples, Nos. 1 to 11,* sent from Pergunnah Kootee Bhar, is a cotton I am not at all acquainted with. I suppose it was once a yellow cotton, such as nankeen cloth is manufactured of. It must have got its present miserable colour (for it is neither yellow, white, or blue, but a mixture of all of them, without partaking decidedly of either colour) by degenerating or bad culture. It is not deficient in length or strength of staple, but is an article I am persuaded would meet with no sale in a foreign market.

3. One sample marked "Nurma"† is a nankeen, and has a good yellow colour. (I suppose this cotton is misnamed, as I am of the impression that the nurma is a white cotton.) The samples from Mouzah Lookhia, Pergunnah Moonsoornugger Bustee; one from Mouzah Burhoulee; one from Mouzah Merhee, Pergunnah Moonsoornugger Bustee. I think, are superior in fineness and length of staple to the other samples. None of them, however, are inferior to the cotton of Bundlecund with which I am acquainted, and in one respect superior; that is, they have not that woolly, harsh fibre of Bundlecund cotton, and if properly cleaned and put up, no objection would be had to them in market.

4. There is one sample marked "Bharelow" cotton† that differs entirely from the other samples; it has double the quantity of wool on a seed, a fine soft fibre, but not quite so long or of as good colour as the few samples mentioned above.

Office of the Government Cotton Plantations,
Goruckpore, 1 May 1843.

I have, &c.
(signed) *M. Blount*,
Government Cotton Planter.

(True copy.)
(signed) *C. Allen*,
Officiating Secretary to the Government, N. W. P.

(No. 60 in No. 1500 of 1849.)

SAMPLE OF GORUCKPORE COTTON.

No.	VILLAGE.	TUPPAH.	PERGUNNAH.	American Seed sent from Jubbulpore to Bundlecund.
1	Sehereea - - -	Oojoy - - -	Aurangabad - - -	No. 4. Of the 10 samples of Pergunnah Aurangabad, there is not a seed difference; the colour and fibre of the cotton is good, and the staple is not shorter than Indian cottons in general. I have sewed on to the paper a small parcel of American cotton, ditto cotton from seed sent from Jubbulpore, a small sample of cotton common to the Pergunnah of Soomerpore, so that you might be able to judge, by comparison, the cotton of this district. No. 4 is a fair sample of cotton sent from Pergunnah of Aurangabad.
2	Majhuwar - - -	Benourpara - - -	ditto - - -	
3	Dulputpoor - - -	Oojoy - - -	ditto - - -	
4	Pudmanpoor - - -	Munwar - - -	ditto - - -	
5	Rumooapoor - - -	Oojoy - - -	ditto - - -	
6	Burdeha - - -	Birwar - - -	ditto - - -	
7	Bhet-Khaha - - -	Muhoy - - -	ditto - - -	
8	Seyee - - -	Oojoy - - -	ditto - - -	
9	Lukmunpoor - - -	Kulwaree - - -	ditto - - -	
10	Uchypoor - - -	ditto - - -	ditto - - -	
1	Bhuroulee - - -	Secunderpoor - - -	Moonsoornugger Bustee.	The three samples from Pergunnah Moonsoornugger Bustee, is a cotton of fine, long fibre, rather weak, and good color; in length a little shorter of American, but quite equal to the Jubbulpore cotton.
2	Sookhish - - -	ditto - - -	ditto - - -	
3	Merhee - - -	ditto - - -	ditto - - -	

* Kote Bhar in Pergunnahs Sidhoa Jobuna and Telpoor Koktee. I had, I confess, great hopes of this cotton; I still think it worthy of attention; cloth made of it sells 35 per cent. better than that from ordinary cotton.

† Particular care will be taken to secure the seed, and to give it the benefit of an improved culture and manipulation.

No.	VILLAGE.	TUPPAH.	PERGUNNAH.	American Seed sent from Jubbulpore to Bundelcund.
1	Puchowas - - -	Secunderpoor - - -	Amorah - - -	Four samples from Pergunnah Amorah are of the same quality of that sent from Aurungabad. No. 1 to 11, is a yellow cotton, fibre strong, moderate length.
2	Ram Ghur - - -	Ramghur - - -	ditto - - -	
3	Soomdha - - -	ditto - - -	ditto - - -	
4	Serowlee - - -	Secunderpoor - - -	ditto - - -	
1	Beehapoor - - -	- - -	Kotee Bhar, Pergunnah Tilpoor, and Sidhoe Jobuna.	One sample, marked Nurma, is a much better color than the yellow cotton, No. 1 to 11, from Pergunnah Amorah. Noted on package Nurma.
2	Sisowa - - -	- - -		
3	Moosa Chuppra - - -	- - -		
4	Kurdimah - - -	- - -		
5	Rajwal - - -	- - -		
6	Gouree - - -	- - -		
7	Bhojoulée - - -	- - -		
8	Aumdeeba - - -	- - -		
9	Bhugowlee - - -	- - -		
10	Dhunoy - - -	- - -		
11	Captain Gunge - - -	- - -		
1	Koosunohar - - -	Soonkhery - - -	Moohwlee - - -	6 and 8. Samples 1 to 48, from Pergunnah Muhowlee, average the same as the samples from Pergunnah Aurungabad, except Nos. 6 and 8, which are nearly as quite to the three samples from Moonsoornuggur Bustee.
2	Rampoor - - -	ditto - - -	ditto - - -	
3	Murchah - - -	ditto - - -	ditto - - -	
4	Seuhun - - -	ditto - - -	ditto - - -	
5	Roomeepoor - - -	ditto - - -	ditto - - -	
6	Bhurjha - - -	ditto - - -	ditto - - -	
7	Nuggolee Khoord - - -	Mayhanee - - -	ditto - - -	
8	Sooreniah - - -	ditto - - -	ditto - - -	
9	Cakergarud - - -	ditto - - -	ditto - - -	
10	Bhooadgaun - - -	ditto - - -	ditto - - -	
11	Dickhla - - -	ditto - - -	ditto - - -	
12	Nugolee Kullan - - -	ditto - - -	ditto - - -	
13	Murdwa - - -	Hurkhela - - -	ditto - - -	
14	Bechoand - - -	ditto - - -	ditto - - -	
15	Hurkhela - - -	ditto - - -	ditto - - -	
16	Imlaha - - -	ditto - - -	ditto - - -	
17	Ameriah - - -	ditto - - -	ditto - - -	
18	Bhoonsee Singpoor - - -	ditto - - -	ditto - - -	
19	Putteeah - - -	Toolasoo - - -	ditto - - -	
20	Bhumourah - - -	ditto - - -	ditto - - -	
21	Muthnee - - -	ditto - - -	ditto - - -	
22	Muckdoompoor - - -	ditto - - -	ditto - - -	
23	Punch Pookhorae - - -	ditto - - -	ditto - - -	
24	Mootee Kullan - - -	Toorooksuwar - - -	ditto - - -	
25	Moorad Bhar - - -	ditto - - -	ditto - - -	
26	Ranypoor - - -	ditto - - -	ditto - - -	
27	Busseepoor - - -	ditto - - -	ditto - - -	
28	Mootee Khoord - - -	ditto - - -	ditto - - -	
29	Pursuhur - - -	Mooradpoor - - -	Mhowlee - - -	
30	Rutteeah - - -	ditto - - -	ditto - - -	
31	Gahonawn - - -	ditto - - -	ditto - - -	
32	Choorah - - -	ditto - - -	ditto - - -	
33	Aungasee - - -	ditto - - -	ditto - - -	
34	Beethair - - -	ditto - - -	ditto - - -	
35	Puchrah - - -	ditto - - -	ditto - - -	
36	Moodbaree - - -	ditto - - -	ditto - - -	
37	Aurghat - - -	ditto - - -	ditto - - -	
38	Nuggowa - - -	ditto - - -	ditto - - -	
39	Mooradpoor - - -	ditto - - -	ditto - - -	
40	Mujhowa Oorf Guneshpoor.	ditto - - -	ditto - - -	
41	Bhelow - - -	Aheawn - - -	ditto - - -	
42	Buluhur - - -	ditto - - -	ditto - - -	
43	Monney Moondbpoor - - -	ditto - - -	ditto - - -	
44	Russoolpoor - - -	ditto - - -	ditto - - -	
45	Puonee - - -	ditto - - -	ditto - - -	
46	Ghudheeha - - -	ditto - - -	ditto - - -	
47	Goordhut - - -	Simra - - -	ditto - - -	
48	Goyghat - - -	ditto - - -	ditto - - -	

No.	VILLAGE.	TUPPAH.	PERGUNNAH.	American Seed sent from Jubbulpore to Bundelcund.
1	Somreda Nuddee	Ooterha Belee	Husunpoor Muglow	11 samples from the pergunnah are very dirty, though on pulling out staple, I find it of very fair length and colour. No. 1 is a fair sample of its quality. Nos. 4 and 8 are of long staple, but rather weak.
2	Dreta	ditto	ditto	
3	Dureeaun	ditto	ditto	
4	Gungasera	ditto	ditto	
5	Simrah	Kusbah	ditto	
6	Husnee	ditto	ditto	
7	Beearah	ditto	ditto	
8	Soowara	Oodhowlee	ditto	
9	Russoolpoor	Kusba	ditto	
10	Purasee	Hureehur	ditto	
11	Purasee	Koossaaree	ditto	
1	Paharee	Suckra	Russoolpoor Ghose	Is of good length, but weak. Called Bhardum; the seed is thickly covered with wool staple, rather short, but strong.
1	Poreinah	Estar	Ruttunpoor Bansee	

(signed) A. M. Blount, Government Cotton Planter.

(True copy.)

(signed) C. Allen,

Officiating Secretary to the Government, N.W.P.

(No. 61, in No. 1500 of 1849.)—(No. 244 of 1844.)

From E. A. Reade, Esq., Collector of Goruckpore, to E. P. Smith, Esq., Commissioner, Fifth Division, Benares.

Sir,

WITH Mr. Blount's accounts for the past month noted in the margin,* I beg leave to submit that gentleman's report of date 1st instant.

2. You will participate with me in the disappointment, that neither in a good or bad season has the experiment of the cotton farm succeeded. Mr. Blount's report is faithful and accurate. It is due to him from me that I should observe, if industry and attention could have induced success, he would have succeeded. It will be observed that the experiment has been more variously tried than last year, but with the same result.

3. I think it therefore proved, that the experiment with foreign cotton, has been and will be a failure in this district, and I recommend that the proposition in the 6th para. of Mr. Blount's letter be sanctioned at once.

4. I believe the opinion, never relinquished by some, is gaining ground, that the indigenous cotton of India, properly cultivated, tended and ginned, is likely to be attended with more satisfactory results, than experiments of the nature which have been tried here and elsewhere.

5. It is a fact that there is no inconsiderable cultivation of cotton in this district, and that there are varieties of cotton. It is admitted that it would be more extensive but for the depredation of cattle; and we have the testimony of a practical man, that it is not the article, but the state in which it is brought into market, which gives it present ill repute. The experiment, too, it should be remembered, has been tried upon sandy soil, and in Pergunnah Munglee, where there is no indigenous cotton.

6. In 1821, 315 maunds of opium were realised by cultivation of the poppy; in 1841 the out-turn is nearly 5,000 maunds, and this result has been obtained, not by any increase of price paid for the drug, the rate being still the same, but by the simple mechanism of seasonable advances, and faithful adjustment. I think well of the proposition made in para. 8 of Mr. Blount's letter. No such intricate machinery or such varied precautions as the Benares agency comprises, is required in this case. Those who take advances from the Treasury will be able to give security for payment in produce, making good any deficiency which may arise, upon a calculation of value at average market rates, for the last five years. The experiment might be limited to 500 beegabs, and the establishment of supervision, besides Mr. Blount, might be maintained at trifling expense.

I have, &c.

Goruckpore Collectorship,
10 October 1844.(signed) E. A. Reade,
Collector.

(True copy.)

(signed) C. Allen,

Officiating Secretary to the Government, N. W. P.

* Mr. Blount's Salary Bill for September 1844; Contingent Bill, in duplicate, for September 1844; Detailed statements of establishment for September 1844; abstract of Diary of Coolies for September 1844; Cash Account for September 1844.

(No. 62, in No. 1500 of 1849.)—(No. 63 of 1844.)

From *M. Blount*, Esq., Government Cotton Planter, Goruckpore, to *E. A. Reade*, Esq.,
Collector of Goruckpore.

I.
Bengal and
North Western
Provinces.

Sir,

I HAVE delayed making a report on the Government experiment cotton farm under my charge at this station, for the reason, that at different stages of the cultivation in previous years, the appearance of the plants has always been so flattering as to induce me to report favourably of the prospect, when the result has been that my expectations have not been realised; I therefore thought it best to wait until I should be able to report definitely as to its success or failure for this season; and I now much regret to have again to report a total failure of the experiment at this farm.

2. This season has been quite different from that of 1843; that year there was rather a scarcity of rain, this season has been a very wet one; yet the result of both seasons' experiment have been the same, a failure. At the first setting in of the rains I had the old plants pruned, and they immediately threw out vigorous shoots, and judging from the quantity of flowers and young pods, promised to yield a most prolific crop; but as in the previous year's experiments, the fruit has dropped off before arriving at maturity; this has not only been the case with the American, but with every other description of cottons on this farm, with the exception of the Nurma and Cooktee cottons of this district, which I presume must require a peculiar situation or soil, for on the sandy soil of this farm it has not even blossomed.

3. The new plants of this season are very small, and as yet show no disposition to produce, particularly the American, which will yield nothing.

4. Five and a half beegahs of American and Jubbulpore cotton, which I planted on fresh lands at the grant of Mr. M'Cornish, has grown to a much larger plant than that on the farm at the station, but has been damaged so much by worms, that under the most favourable circumstances it can produce only a very scanty crop.

5. The Bourbon and American cotton planted in February, by irrigation, both have grown very large, but have not yet produced any flowers.

6. I beg to bring to your notice that the time of my engagement with Government will expire in April next, and that another trial of the experiment cannot be made before that time, and unless it is the intention of Government to pursue the experiment further, I would respectfully suggest that the servants under me on this establishment be discharged, except such* as are necessary for watching the farm, and the property belonging to the farm disposed of, by which a saving of six months' expenses will be made to Government.

* A peon and a
chowkeedar.

7. The cultivation of the farm is completed, and there will be no work to perform but such as can be done by daily labourers.

8. Unfortunate as have been all the experiments under my superintendence, not having even met with partial success (only in one season, that of 1841, in Bundlekund), I am still of the opinion that the experiments will be attended in some other portion of the country with success. But to secure what I suppose one of the prime objects of Government, a more extensive and better cultivation of the cotton plant, it will be necessary to change the mode of conducting the experiments, from what it has heretofore been (nej cultivation) to a zemindaree or ryotwar system, by giving advances to the natives for cultivating, with an agreement on their part to pursue the system of cultivation pointed out by the planter, and also secure to Government a repayment of the advances either in produce or money. By pursuing such a system the ryot becomes interested, and it at once secures a more extended cultivation of the plant that can ever be accomplished by a single planter under the nej system. The planter might still, as heretofore, have a small model farm, but of not more than 40 or 50 beegahs; this would give land enough for the trial of every description of foreign and indigenous cotton, and would allow the planter time for superintending and instructing the ryots in the American mode of cultivation.

9. The establishment of machinery for cleaning the cotton raised by the natives, would I am persuaded go very far towards improving the character of the native cotton. The native cotton is not such a very inferior article (particularly those of the district of Jubbulpore and the country on the head waters of the Taptee and Nerbudda rivers), but it is the dirty state in which it is brought into market, being both trashy and dirty, which diminishes its price.

I have, &c.

Office of the Government Cotton Plantations,
Goruckpore, 1 October 1844.

(signed) *M. Blount*,
Government Cotton Planter.

(True copy.)

(signed) *C. Allen*,
Officiating Secretary to the Government, N. W. P.

DIVISION.	DISTRICT.	Query 1st.	Query 2d.				Query 3d.	Query 4th.	Query 5th.		Query 6th.	Query 7th.
		Price of Cotton, Freed from Seed, at the Principal Marts in the District? Per Maund.	Price at which the Ryot Sells his Cotton, Cleaned or Uncleaned, and With or Without Advances?		Expense of Cleaning Cotton by the Churkee?		Expense of Conveying Cotton to the nearest Port for Shipment? Per Maund.	Average Produce of Cotton? Per Acre.	Quantity of Land under Cultivation with Cotton and Extent to which it is probable Cultivation could be carried in the event of an Increased Demand?		The Maund, Seer, Rupee, and Beegah, used in these Calculations?	
			With Advances. Per Maund.	Without Advances. Per Maund.	Cleaned.	Uncleaned.			Cleaned.	Uncleaned.		Under Cultivation.
Delhie	Bhutteanah -	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Ms. s. c.	Ms. s. c.	Acre.	Acre.	Maund, 40 seers. Seer - 80 C.'s Rs. Beegah, 3,025 Rupee - Co.'s.
	Panceput -	5 15 8	1 14 9	5 13 11	2 1 11	-	-	-	-	14,820	16,703	
	Hissar -	6 13 -	1 10 7	6 5 4	2 - -	-	-	-	-	9,271	11,271	
	Delhie -	6 2 5	-	6 1 6	2 - -	-	-	-	-	3,321	6,642	
	Rohituck -	6 8 5	-	5 14 -	-	-	-	-	-	14,552	18,750	
	Goorgaon -	5 15 3	1 13 2	5 13 1	1 15 5	1 2 11	2 12 3	1 23 0	4 39 5	29,617	35,418	
		6 4 6½	1 12 7	5 15 11½	2 - -	-	3 5 9	1 19 6	6 22 14	71,581	88,784	
Meerut	Dehra Dhoon -	-	-	-	-	-	-	-	-	-	-	
	Suhaarunpore -	7 7 -	2 3 8½	7 5 9½	2 6 2½	-	-	-	-	30,637	39,426	
	Moezuffernuggur -	5 4 -	2 - 7	7 4 4	2 2 2½	-	-	-	-	15,601	17,601	
	Meerut -	6 5 6	1 13 7½	6 3 5	1 15 3	-	-	-	-	23,046	29,731	
	Booldandshur -	6 6 4½	-	5 14 9½	1 13 5	-	-	-	-	14,505	14,505	
	Allyghur -	6 15 1½	1 14 4	6 12 9	2 2 11	-	-	-	-	60,050	69,050	
		6 7 7½	1 15 -	6 11 5	2 1 7½	-	3 5 3½	1 38 9	4 14 13½	1,52,839	1,70,313	
Kumaon	Kumaon Proper -	12 4 11	-	-	-	-	-	-	-	260	260	
	Gurhwal -	-	-	-	-	-	-	-	-	-	-	
		12 4 11	-	-	-	-	-	-	-	260	260	
Rohilkund	Bijnour -	7 4 5½	-	6 10 8	-	1 9 2½	1 12 9½	2 1 0	-	19,039	19,039	40 - 80 Co.'s Rs.
	Moradabad -	10 8 -	-	7 8 -	2 8 -	1 - -	- 15 1½	2 16 0	-	50,000	1,00,000	40 - 100 "
	Budaon -	8 - -	-	8 - -	2 - -	- 12 10	- 10 10	-	-	34,091	79,459	40 - 80 "
	Bareilly -	10 - -	-	10 - -	2 8 -	- 10 -	-	1 12 8	4 15 -	29,711	29,711	40 {Furruckabad and Bareilly, Chulian.
	Shahjehanpore -	10 13 9	-	-	2 8 6	-	Seed -	-	- 21 4	2 4 8	7,160	11,733
		9 5 3	-	8 - 8	2 6 1	- 15 6	1 - 2 3	1 22 11	-	140,000	230,973	

[illegible]

Sudder Board of Revenue, N. W. P., Agra, }
27 February 1849.

(True copy.)
(signed) C. Allen,
Officiating Secretary to the Government, N. W. P.

(signed) *W. Muir, Secretary.*

I.
Bengal and
North Western
Provinces.

Home Department, Revenue.—No. 7 of 1851.

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

IN continuation of our letter, No. 6, of 1849, dated the 19th May, we have the honour to transmit the accompanying despatches from the Governor-general's agent in Bundelcund and for the affairs of Scindia's dominions, having reference to your inquiry as to the extent to which India might be capable of supplying cotton, in the event of an increased demand for it in Europe.

We have, &c.

(signed) *J. H. Littler.*

F. Currie.

J. Lewis.

Fort William, 16 May 1851.

(No. 1317.)

OFFICE MEMORANDUM.

Foreign Department, Camp, Moojaraie, 26 April 1851.

READ extract from the proceedings of the Governor-general in Council in the Home Department, No. 20, dated 15th January 1848, relative to the extent to which India might be capable of supplying cotton, in the event of an increased demand for it either in England or elsewhere.

Read also the two following despatches, dated respectively the 25th November and 4th December last, Nos. 76 and 159, from the Governor-general's agent in Bundelcund and for the affairs of Scindia's dominions, respecting the produce of cotton in the native states of Bundelcund and Scindia's territory.

(No. 76 of 1850.)

From *G. A. Bushby*, Esq., Agent Governor-General, Bundelcund, to *Sir H. M. Elliot*, K. C. B., Secretary to the Government of India with the Governor-General, Camp.

Sir,

WITH reference to your letter, No. 247, dated the 28th January 1848, I have the honour to forward the copy of a letter, No. 141, dated the 3d ultimo, from Captain Ellis, political Assistant for Bundelcund, with a statement, from which it will be seen that the Bundelcund Native States do not produce much cotton, and that very little of the land is suitable to the growth of a good merchantable article. The stated expense of conveyance to Calpee cannot be depended on; it varies in the return from the different districts in a manner not to be explained by any relative difference in distance.

The

TABULAR STATE MENT of Replies furnished by the States of Bundelcund to the Queries regarding Cultivation and Begahs of 100 Square Haths; called for by letter No. 31, dated 14 February 1848, from the Agent to the Governor-General.

NAME of STATE.	What is the Price of Cotton, Freed from Seed, at the Principal Marts in your District?	At what Price does the Ryot Sell his Cotton, Cleaned or Uncleaned, with or without Advances?
1. Jhansi - - -	- - Price varies, according to the quality of the season, from Rs. 6. 10. to Rs. 10. 12.	- - The kupas, or uncleaned cotton, is sold by the ryots at 20 seers per rupee, and the rué, or cleaned cotton, at six seers per rupee; when advances are made, one seer extra of the kupas, and one quarter seer extra of the rué is given.
2. Chutturpore - -	- - Price varies, according to the quality of the season, from eight to ten rupees per maund.	- - Kupas at from Rs. 2. 8. to Rs. 4. 8. per maund; if advances are made a difference of four annas per maund is made. The ryot seldom sells the cotton after cleaning it.
3. Tehrie - - -	- - Average price per maund is Rs. 8. 7.	- - Kupas at 17 seers per rupee, and rué at eight rupees per maund. When advances are made in Asar (June and July) interest is allowed in Aghan (November and December), at the rate of two annas per rupee on the amount advanced.

The Bundelcund cotton and Gwalior cotton is chiefly grown in our own districts on the Jumna, and in Scindia's districts of Toorghur, Seekurwaree, &c., adjoining the Chumbul river. Several gomashtas of different soucars, from Agra, Etawa, Kuchowra and Pinahut, have come during the present year to settle at Umbah, in Toorghur. They have bought this season one lac of rupees of cotton from the zemindars of Doondree, Umbah and Aonah (villages of this district), and they would very greatly extend their purchases if a gunj were built at Umbah, a measure which has been recommended to the durbar by Lieutenant-colonel Sir Richmond Shakespear, who on a former occasion had succeeded in getting orders from the Mama Saheb putting the cotton duties on a very satisfactory footing.

Rowanahs are prepared in Gwalior and sold in the districts along the Chumbul to the merchants; the duty is eight annas per bullock load, and one payment clears the load to the frontier.

Much cotton is grown on the Chumbul, and of so superior a quality, that the American planters in the Government employ sent to Bagcheen, in Seekurwaree, for its seed. The price of Bagcheenee cotton at Mirzapore is 20, while that of cotton generally from the North Western Provinces is 17.

A gunj had been established by the intercession of this officer some time ago at Jora Alumpore, in Seekurwaree, for the cotton merchants, they subscribing a portion of the cost and the durbar the remainder, to which terms the merchants frequenting Umbah are also prepared to assent.

I have, &c.

(signed) G. A. Bushby,
Agent Governor-General.

Bundelcund Agency Office, Camp, Calpee,
25 November 1850.

(No. 141.)

From Captain R. R. W. Ellis, Political Assistant for Bundelcund, to G. A. Bushby, Esq.,
Agent Governor-General for Bundelcund, Jhansi.

Sir,

IN pursuance of the instructions contained in letter No. 31, dated 14th February 1848, from Colonel Sleeman, directing me to call upon the different chiefs of Bundelcund for replies to the queries proposed by the Honourable the Court of Directors regarding the cultivation of cotton in this part of the country, I have the honour to forward a tabular statement, giving such information as has been elicited upon the subject.

The delay in forwarding this statement has been owing to my having had to call repeatedly upon some of the chiefs, before the required information was supplied, and to that now procured from Datea having only been received the day before yesterday.

I have, &c.

(signed) R. R. W. Ellis,
Political Assistant for Bundelcund.

Jhansi, Political Assistant's Office,
3 October 1850.

of Cotton, the Calculations being made in the Company's Rupee, and Maund of 40 Seers of 80 Company's Rupees each, General, in pursuance of Orders from the Secretary to the Government of India, No. 247, dated 28 January 1848.

What is the Expense of Cleaning Cotton by the Churka or Foot-Rollers, or by any other Method which may be in use?	What are the Expenses of Conveying Cotton to the Nearest Port of Shipment?	What is the Average Produce of Cotton per Begah or Acre?	What is the Quantity of Land under Cultivation with Cotton, and to what Extent is it probable that the Cultivation could be carried in the event of an increased Demand?
Six annas per maund	- - The cost of transporting cotton from Jhansi to Calpee varies from six to seven annas per maund.	- - A begah of land in a good season yields a maund of kupas.	- - About 3,000 begahs, which might be increased to 3,500.
Eight annas per maund	- - One quarter of an anna or three pie per maund for each coss.	- - From 1 to 172 maunds per begah.	- - About 6,000 begahs, which might be increased to 8,000 begahs.
Seven annas per maund	- - Costs of conveying cotton from the Tehrie district to Calpee, average from seven to eight annas per maund.	- - Twenty seers to one maund per begah.	- - The soil of this district is kankar, and very stony; very little cotton is cultivated in consequence, and could not be increased.

(continued)

TABULAR STATEMENT of Replies furnished by the States of Bundelcund to the Queries regarding

NAME of STATE.	What is the Price of Cotton, Freed from Seed, at the Principal Marts in your District?	At what Price does the Ryot Sell his Cotton, Cleaned or Uncleaned, with or without Advances?
4. Datia - - -	- - - Varies from Rs.7. 14. to Rs.8. 4. per maund.	- - - Kupas at the rate of one or one and a half, and rué at from two to four chuttacks above the bazar rate. Interest is allowed upon advances made, but there is no fixed rate of charging interest.
5. Bijawar - - -	- - - The cotton used in this district is brought from Garha Mundla, and retailed at about Rs.8. 12. a maund.	- - - - -
6. Punnah - - -	- - - Average price is seven rupees per maund.	- - - Kupas can be purchased from ryots at Rs.2. 4. or two rupees per maund when advances are made.
7. Chirkari - - -	- - - Average price is Rs.6. 14. 9. per maund.	- - - Kupas was sold last year at the rate of 20 to 22 seers per rupee, and rué at the rate of seven rupees, or Rs.6. 9. per maund when advances were made.
8. Sumptur - - -	- - - Varies, according to the quality of the season; from seven to twenty rupees per maund in seasons of great scarcity.	- - - Kupas was sold last year at 18 seers per rupee, and rué at Rs.8. 12. per maund. When advances were made, interest at the rate of two per cent. per annum is allowed for the use of the money.*

* Query, Two annas per rupee? See No. 3, Tehrie, of this Statement.

Jhansi, Political Assistant's Office, }
3 October 1850.

(No. 159 of 1850.)

From *G. A. Bushby*, Esq., Agent Governor-General for Scindia's Dominions, to Sir *Henry M. Elliot*, K.C.B., Secretary to the Government of India, with the Governor-General, Head Quarters.

Sir,

I SUBMITTED from my Bundelcund office, on the 25th ultimo, No. 76, some tabular information respecting the cotton grown in the Bundelcund states, and other particulars respecting the cotton grown in the districts adjoining the Chumbul in Scindia's country, of which the Bagcheenee, in the Seekurwaree district, is a peculiarly good and valuable kind of cotton.

2. I have received, since my letter was written, further interesting details on the subject from Lieutenant-colonel Sir R. Shakespear, my assistant at the Gwalior Residency, in continuation of the report from that officer, forwarded to the Government with my predecessor's letter, No. 79, dated the 15th June 1847.

3. I beg that the annexed extract paragraphs, 1 to 11 inclusive, and copy of the post-script of the communication above referred to from Sir Richmond Shakespear, may be brought to the notice of the Most Noble the Governor-general.

4. We have launched, at last, I hope, into an honest and effectual experiment of revenue reform in Toorghur, which soobah contains six districts, favourable to the production of cotton, and we may therefore anticipate a security and activity which will be greatly beneficial to the interests of the cotton trade. The latest arrangements with the durbar for the improvement of the administration of the Toorghur districts is reported in a despatch from Lieutenant-colonel Sir R. Shakespear, No. 752, dated the 30th ultimo, of which I also enclose a transcript.

5. I beg to add, for the information of the Governor-General, copy of a report from Lieutenant-colonel Sir Richmond Shakespear, No. 757, dated the 3d instant, in continuation

Cultivation of Cotton, the Calculations being made in the Company's Rupee, &c.—*continued.*

What is the Expense of cleaning Cotton by the Churka or Foot-Rollers, or by any other Method which may be in use?	What are the Expenses of Conveying Cotton to the Nearest Port of Shipment?	What is the Average Produce of Cotton per Begah or Acre?	What is the Quantity of Land under Cultivation with Cotton, and to what Extent is it probable that the Cultivation could be carried in the event of an increased Demand?
Four annas per maund	- - Costs of conveying cotton to Koonch average from one and a half to three annas per maund.	- - One maund per begah in fair season.	- - About 20,000 begahs, which might be increased to 22,000 or 23,000 begahs.
- - - - -	- - - - -	- - - - -	- - The soil in this territory is very strong, and no cotton is grown in consequence.
Eight annas per maund	- - One anna per maund per stage.	- - A begah of land last year yielded two and a quarter maunds of kupas, which when cleaned weighed 30 seers.	- - About 1,000 begahs, which might be slightly increased.
Eight annas per maund	- - Conveying cotton from this district to the Jumna costs about four annas, nine pie per maund.	- - A begah of land in good season yields from two to two maunds and 30 seers of kupas.	- - About 29,200 begahs, which might be increased to about 40,000 begahs.
Eleven annas per maund	- - Conveying cotton from this district to Koonch costs about two annas per maund.	- - From 10 to 30 seers of kupas per begah of 105 haths square.	- - About 50,000 begahs, which might be increased to 60,000 begahs.

(signed) *R. R. W. Ellis,*
Political Assistant for Bundelcund.

(True copy.)

(signed) *G. A. Bushby,* Agent, Governor-General.

ation of the despatches No. 561, dated the 27th August, and No. 592, dated the 10th September last, submitted with my letter No. 150, dated the 9th of November, describing some of the details for the revenue reform in progress in Scindia's northern districts. I am sorry to have to report the death of Kapa Shastree, the President of the Adawlut, which has recently occurred at the Lushkur, and is a great misfortune.

Gwalior Agency Office, Camp Sumptur,
4 December 1850.

I have, &c.
(signed) *G. A. Bushby,*
Agent Governor-General for
Scindia's Dominions.

EXTRACT from a Letter from Lieutenant-colonel Sir *Richmond Shakespear*, Assistant for Scindia's Dominions, to *G. A. Bushby*, Esq., Agent to the Governor-General for Scindia's Dominions, No. 739 of 1850, dated 26 November 1850.

PARA. 1 to 11. I beg your attention to the postscript of my letter No. 262, of date 18th April last, which relates to the cotton trade.

2. Mr. Hamilton Bell has long been employed by his Honour the Lieutenant-governor in different experiments, and in collecting information. This gentleman wrote to me lately, saying that he thought that to increase the supply of cotton, more might be done in the districts on this side of the Chumbul than in any other portion of the North Western Provinces.

3. At Bagcheenee, which is in Seekurwaree, there is a plant, the cotton from which is so superior that it fetches four annas more for every 15 seers than the cotton of other places. This is at the Mirzapore market.

I.

Bengal and
North Western
Provinces.

4. When at Umbah in April last, I strongly advised the Soobah of Toorghur to get the seed: he did so, and distributed it to the zemindars of Umbah pergunnah, and 400 beegas were cultivated with this seed in that pergunnah alone; most fortunately, the season has been favourable and the cotton is now being plucked. I have compared it with other cotton grown in the same pergunnah from common seed, and the superiority is very evident. Those who have examined the two, say that the price of Bagcheenee seed cotton will be greatly above the other.

5. The gunj at Umbah has been commenced, and a substantial foundation has been completed; eight of the houses are ready and occupied. I mentioned in the enclosure to No. 262, that 14 gomashas had been sent by the Agra, Etawah, Kuchowra and Pinahut merchants to Umbah, and that their purchases last year were valued at one lac of rupees. But this was the first year, and these purchases were only from three districts.

6. The whole line of the Chumbul, from Subbulghur to Altair, 95 miles in length by 10 deep, is favourable to the cotton plant; the enormous interests we have at stake in this trade render it incumbent on us to encourage the growth of cotton and facilitate its exportation.

7. But the experience of the last seven years has convinced me that it is utterly useless to hope that any reform will be carried out unless we ourselves constantly watch and foster it.

8. As one instance, I may mention that in 1845, I gave leases to the zemindars of every village in the six districts of Toorghur, and the amils were the paid servants of the Government. This measure was agreed to by the durbar, and strongly approved of by Colonel Sleeman. Para. 8 of my letter No. 262, will show how completely the durbar had contrived, within five years, to upset this reform.

9. Subsequent to the leases, I got from the durbar an agreement to pass cotton by rowannahs; eight annas paid at certain convenient posts, cleared a bullock load to the frontier. It is hardly possible to believe that, with such a stipulation, the durbar should actually farm the collection of the cotton duties; yet the farmer of one year gave me a petition complaining that the contract had been given to another person. And the durbar has gravely complained to me of the serious loss which the eight annas duty has entailed on them. Of course, the farmer insisted on a reduction in the contract, as the rate was reduced; but he must have cleared an immense profit. I have spent more than an hour trying to convince the Mama Sahib and his dewan that, by giving 10,000 rowannahs to an agent, and making him restore them or 5,000 rupees, they would have a simple and effectual mode of collecting cotton duties, but have entirely failed to convince them. The loss is theirs, and no concern of ours.

10. My reason for troubling you with this letter is to point out that no extensive encouragement can be given to the growth of cotton until a secure and fair settlement of the revenue has been made, and a regular system established of officers for collecting that revenue, all paid by the Sirkar, and controlled by a respectable Soobah. Until this is done capitalists will not advance to the cultivator to induce him to sow cotton; they will only purchase what they may find offered for sale, which of itself is not sufficient to meet our wants.

11. If the cultivation of cotton is really so important a question as I imagine, we ought to take full advantage of the opportunity we now enjoy during the minority of the Maharajah. It is surely a matter of serious consequence to us to bring the 950 square miles of land which Mr. Bell pronounces so favourable for cotton, into a settled state. It is hopeless to expect the durbar to do it unless we come very prominently forward; nothing whatever resulted from my friendly remonstrances in April last (as given in the enclosure to my letter No. 262). Not a single order was passed for the payment of Government servants; and though the three contractors were told that they must give leases to the zemindars, they are still in office as unpaid servants responsible for the whole revenue of their districts, and therefore altogether independent of the Soobah, and anxious to thwart him in every way.

P.S.—Mr. Bell is not a theorist, but a practical man, who, apart from his experiments for the Government, has an estate of his own near Agra. It was in 1846 that I heard he had got seed from Bagcheenee, and he last year made purchases of cotton in Seekurwaree: the opinion of such a man must have weight.

Of the computed area of 950 square miles, I do not suppose it possible that, even under the most favourable circumstances, above one-half could be brought under cotton cultivation; still, 400 square miles of good soil, which has been proved so favourable to the cotton plant, ought to receive our constant and careful attention. Advances to the zemindars by capitalists will do much, but more is required if we hope to create a really extensive cotton field; for instance, the usual khureef cultivation which has hitherto prevailed requires little labour, as compared to that of cotton; to carry on the latter, the zemindars must induce more labourers to settle in their villages. It is unlikely they will do so, unless they feel secure of their own tenure of their leases. A great impetus will be given this year to the cultivation of cotton by the extraordinary abundance of the other produce of the khureef harvest. Bajara, jewar, and similar grains are so abundant that the zemindars who have grown them alone cannot find purchasers, but cotton is much inquired for, and readily bought up; all along the Chumbul the khureef harvest is 12 annas in the rupee. Full details regarding the reform of the cotton duties will be found in my letter to Colonel Sleeman,

Sleeman, No. 351, of date 11th June 1847; the sketch which accompanied the letter may be useful. The rate of duty has been strictly abided by; the purchasers have realised great profits, but the durbar has suffered in consequence of all the arrangements made (as detailed in para. 8,) for collecting the duties having been set aside. It is most vexatious to find that while everything progresses and improves on the other side of the Chumbul, everything here retrogrades.

(signed) *R. Shakespear*,
Assistant for Scindiah's Dominions.

I.
Bengal and
North Western
Provinces.

(No. 752 of 1850.)

From Lieutenant-Colonel Sir *R. Shakespear*, Assistant for the Affairs of Scindiah's Dominions,
to *G. A. Bushby*, Esq., Agent, Governor-General for Scindiah's Dominions.

Sir,

I HAVE the honour to inform you that I have effected the following arrangements for the six districts of Toorghur.

1st. The detail of expenditure as given in the enclosure to my letter, No. 739, of date 26th instant, to be carried out without any alteration.

2d. The three amils (of Dhoondree, Oomree and Billour), who held contracts to be removed to other districts, and others appointed in consultation with the soobah.

3d. Jignee and Bhind to be no longer considered under the soobah of Toorghur.

2. The last of these arrangements requires explanation. I find that the period of the contract for purgunnah Bhind, which was given during my absence at the Hills, has not expired, and the contractor being an influential person, I think it would be imprudent to secure for the soobah his enmity by placing the one nominally subordinate to the other. The amil of Jignee has also powerful friends, and though his district is strictly puttah bundee, still the ill-will between him and the soobah is so great, that they will not be able to work together.

3. Under these circumstances I have thought it better to secure an arrangement which I think will work well, confining it to six districts, and a net revenue of six and a half lacs of rupees, to trying a more extensive but not so safe an experiment.

4. If this experiment succeeds we may be able to get the durbar to try it in other places, and with so intelligent a soobah I have great hopes of success.

5. The Mama Sahib offered to place 15 lacs of revenue under him, but on examination I found several contracts were included; but the Mama did not mean ill by the proposal.

6. I have come to an understanding with the dewan; he acknowledges his error in having upset the arrangement of 1845, but pleads in extenuation of his not having fixed the details of the expenditure in such districts as Gaormee, that such a measure would be most unpopular with the amils; he says that he can secure, that in puttah bundee districts the zemindars have leases, and that the amils shall not take more from them (without punishment) than is entered in the Kabooleeat, but the utmost he can promise to do in regulating the expenditure is to fix its total amount, leaving the details to the amils. In fact he has told me that he dare not interfere so directly with the perquisites of the amils.

7. A plain honest admission of this sort must always have weight, and we must be contented with the best system we can obtain, which is a very great improvement on the contract.

8. As to the cotton duty, I was shown to-day the man who has the collection, and who said in open durbar that he did not farm them, but was a paid servant of the State. I asked how it was that the sale of cotton had increased so greatly as to require a new mart at Umbah, where 14 Agra firms in one year brought in one lac of cotton from three districts, and yet the durbar's collections of cotton duties decreased? and the dewan confessed that the fault lay in the arrangements which had existed until lately. I heard, when going to the durbar, that the whole subject had been much discussed. I think that all parties are convinced that the increase of the trade must be as profitable to the durbar as to our Government.

Gwalior Residency, Camp Shikarghai,
30 November 1850.

I have, &c.
(signed) *R. Shakespear*,
Assistant for the Affairs of
Scindiah's Dominions.

(True copies.)
(signed) *G. A. Bushby*,
Agent, Governor-general.

I.

Bengal and
North Western
Provinces.

(No. 757 of 1850.)

From Lieutenant-Colonel Sir *R. Shakespear*, Assistant for Scindiah's Dominions, to
G. A. Bushby, Esq., Agent Governor-General for Scindiah's Dominions.

Sir,

IN continuation of my letter No. 752, of date 30th ultimo, regarding the satisfactory arrangement which has been made for the six Toorghur districts, I have the honour to report, that yesterday the Mamma Sahib sent to me the dewan with the soobah of Toorghur, and all the details entered in that letter were gone over, and the dewan promised me to give the soobah his cordial and sincere aid.

2. If the dewan is really a faithful servant of the State he will act up to his promise, for this soobah has already been the means of saving 22,500 rupees per annum to the State.

3. The details of this are as follows; when talking with the dewan over the arrangements at Punniar, he said that there would be a loss of 22,500 rupees per annum, and that that sum ought to be deducted from the estimated revenue of Toorghur (*i. e.* from 6,50,000 rupees), before 12 per cent. was allowed for expenses of collection. I assured him that there must be some error, but he said that he had sent an ameen to give the new leases, who with the soobah had reported that there must be a reduction of 22,500 rupees this year. I sent for my letter-book, and turning to the enclosure to my letter to you, No. 262, of 18 April last, I read to him the soobah's estimate, and showed him that it only entailed a loss of 765 rupees in the year. The dewan appeared shocked, and said he would make inquiries. Yesterday I asked the soobah, before the dewan, whether he was prepared to make the rent-roll agree with his statement given in April, and he said that it was on condition that the leases were to be for five years, to which the dewan agreed; and it was decided that the ameen should be recalled. I ought to have mentioned, that the dewan told me that he had rejected the proposal to reduce the 22,500 rupees. He is a hardworking man, who has the Mamma's perfect confidence, but he has much more thrown into his hands than he can possibly attend to properly, and is not a man of superior ability.

4. After the details of the Toorghur districts had been settled, I was introduced to Keshoo Rao Bhow, who has been appointed soobah of Jignee, Seekurwaree, Subulghur, Sheopore, and Samowlee, all putta bundee districts, except the last. This man is the son of Dajee Shunkur, the ablest revenue officer the durbar had in its service when I was here before. He died while I was at the Hills, and on my urging the Mamma Sahib to make some satisfactory arrangement, at any rate for Jignee and Seekurwaree, I was told that he found the soobah (whose appointment was reported in my letter, No. 561 of August 27 last, para. 3.) was not equal to the appointment, and that the son of Dajee Shunkur would be a better man for it. I said that the choice of the man was a question with which I had no concern, but an able man as soobah was absolutely necessary.

5. The leases in Jignee and Seekurwaree having been given by my own hand in 1846, I feel sure that in those two districts a *bonâ fide* settlement will be made; for if not made, the zemindars will complain that I have not the same confidence regarding Subulghur and Sheopore, and I have not thought it prudent to insist on the details of expenditure being defined as in the six Toorghur districts, simply because the dewan shows so great an aversion to the proposal; he tells me that if the detail system really answers this year in Toorghur, he will carry it on to other districts.

* Mow Kitowlee.
Atainda.
Buaina.
Bugwassa.
Nowrabad Kotwal.
Goremee.
Bhubadoorpoor.
Bhind.

6. A third soobah, by name Narnau Rao, was also introduced to me yesterday; his districts are to be as per margin;* they are all small districts, lying to the south of Bind, and they are all stated to be putta bundee, excepting Bhind, which is farmed to the man who has now been appointed soobah of Seekurwarree; the putta bundee in each district, except Bhind, has been ordered, and the soobah is an intelligent, experienced person, who has the good-will of the Mamma and the dewan, and who will therefore, I hope, have influence with the amils; but that the dewan's expectation of preventing more than the lease being taken from the zemindars should be verified, is, I think, most improbable; and I am very sure that the allowance for expenditure, which under the heading of Mehal Khurch is allowed the amils, will be considered by them as legitimate perquisites; they will keep up no establishment of burkundazes, but trust to threats of bringing guns from the Lushkur to compel payment of revenue; in this way a petty zemindar, who would be brought to order at once by a few burkundazes, remains for days at open dispute with his amils; others then join him, and so the district is said to be disturbed, and to require aid from the durbar. In short, to our ideas the districts are always in a state of insubordination; but in the eyes of the people there is a vast improvement upon what existed previous to the treaty, and in the eyes of the durbar the system is as near perfection as is at all necessary.

7. Our aid is hardly ever called for, and the revenue is, one way or the other, collected. No highway robbery has been reported for some time, and dacoities are unknown. All this is satisfactory, but still the internal administration of the country is very defective, and, as stated in my letter No. 561, of date 27th August, para. 5, I despair of introducing what we consider good government; also *vide* para. 10 of letter No. 592, of 10th September 1850.

8. The soobah of Toorghur was appointed during my absence at the Hills; he is the only man of real ability I have met with for revenue details; of course, I am obliged to be very cautious

cautious lest I cause a jealousy between him and the Dewan. As far as I can judge, the 22,500 rupees proposal was an effort, through the Ameen, to ruin this Soobah, who is thought to be too willing to carry out reforms. I acquit the dewan of being concerned in the plot, and think he believed the ameen's statement that the reduction was made at the soobah's desire. I have ascertained that the soobah knew nothing about it. If such an intrigue would occasion surprise to others, it ought not to me, for I could quote worse instances.

9. With such materials it would be unreasonable to expect to do much good, but this would not justify our not trying to do good.

Gwalior Residency, Camp Shikarghai,
3 December 1850.

I have, &c.
(signed) R. Shakespear,
Assistant for Scindiah's Dominions.

P.S.—Since the above was written I have seen the Mamma Sahib, who says that Dajee Shunkur's son refuses the soobahship of Seekurwaree, &c.; and that, in the event of his continuing to refuse, he will appoint Baba Aptch. Baba Aptch was for many years Soobah of Malwa. Mr. Hamilton had a very high opinion of him, but the late minister, Ram Rao Phalkeeah, insisted on his removal. After this he came to Gwalior, and tried to cause ill will between the Maharaja and the Mamma, and was banished (when Captain Ross was here). The Mamma Sahib recalled him lately, and has proposed him for the present appointment; and, on the principle that the selection of agents rests with the Mamma, I have not objected. I believe the man to be in debt, to be extravagant, but he is intelligent and active. The Mamma Sahib would most willingly order any reforms I might think necessary, and select any agents I might name. I should be very unreasonable if I found fault with him, but it is obvious that I alone should only occasion confusion by interfering in such matters. The Mamma must select his own agents, and I through him must endeavour to urge him to bring about reforms.

(signed) R. Shakespear.

(True copy.)

(signed) G. A. Bushby,
Agent to Governor-General.

Ordered, that copies of the two foregoing despatches be furnished to the Home Department of the Government of India, with reference to the extract from that department under acknowledgment.

(signed) H. M. Elliot,
Secretary to the Government of India with the Governor-General.

Revenue Department, 10 November (No. 9) 1847.

Our Governor of the Presidency of Fort William in Bengal.

(Circular.)

Para. 1. WE transmit herewith 25 copies of a memorandum which has been submitted to us by Dr. Royle, which contains much valuable information in respect to the results of the experiments for introducing the American descriptions of cotton into different parts of India, and for improving the indigenous cotton; and also with regard to the probability of Indian cotton entering into successful competition with the produce of America in the English market.

Cotton.

2. We are desirous of procuring information as to the extent to which India might be capable of supplying cotton, in the event of an increased demand for it, either in this country or elsewhere; and we have accordingly framed the queries in the margin,* which we wish you to circulate among the collectors of land revenue

-
- * 1. What is the price of cotton freed from seed at the principal mart or marts in your district?
2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?
3. What is the expense of cleaning cotton by the churka or foot-roller, or by any other method which may be in use?
4. What are the expenses of conveying cotton to the nearest port for shipment?
5. What is the average price of cotton per beega or acre?
6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation should be carried in the event of an increased demand?

N.B. The beega, maund, and rupee used in answering these questions must be defined.

I.

Bengal and
North Western
Provinces.

revenue under your Presidency, and also among the political agents resident in such native states as are known to produce cotton, with instructions to furnish concise replies on the several points indicated:

We are, &c.

(signed) *H. St. G. Tucker,*

London, *J. L. Lushington,*

10 November 1847.

&c. &c.

OBSERVATIONS on the Results of the Experimental Measures for improving the Culture of Cotton in India.

At the point which the experimental measures adopted by the East India Company for improving the culture of Indian cotton, and its preparation for the market, have now attained, it seems desirable to collect and condense the results at which we have hitherto arrived, and to endeavour to attain from them a satisfactory solution of the following propositions: first, the practicability of India contending with America in producing even a fair quality of cotton; and secondly, the probability of Indian cotton, if sent in a clean state to market, continuing to be employed by any great number of manufacturers, even should American cotton again fall as low in price as it has done.

Cost of American
cotton.

On the first establishment of the cotton experiments in 1840, I made inquiries on the expenses of culture in America, and found that a cotton planter had first to purchase his land, and pay for its being cleared; if it had been cleared, then he had to pay a higher price. He had also to purchase slaves, cattle, agricultural implements, as well as saw-gins, and to erect gin-houses, besides other farm buildings.

The annual expenses consist, besides the interest of the money expended and the deterioration of property, of pay of overseers, food for slaves and for cattle, as also of incidental expenses.

Though the price of land may therefore be small in the first instance, the subsequent and annual expenses are so considerable, that the planter, even with enormous returns per acre, as, for instance, from 300 to 600 lbs. of clean cotton, is yet unable to produce it at a lower cost than about 3*d.* a pound. This accords very nearly with the evidence of Mr. Joshua Bates, of the house of Baring & Co., and also with what I recently learnt at Manchester, that cotton could not, on an average, be produced under 3*d.* a pound, and this without profit to the owner of the property, or the expenses to Liverpool, and from that to the mills at Manchester, &c. The diminution in the imports of cotton from America during the present year is considered to have been occasioned chiefly by restricted cultivation in the United States, in consequence of the low prices of 1846, when fair New Orleans cotton sold at Liverpool for 3½*d.* a pound.

Cost and prices of
Indian cotton.

On careful inquiry into the cost and sale prices of cotton in different parts of India, I find the ryot in some districts sells his cotton without the seed, that is, comparatively clean cotton, for 1*d.* a pound, and readily for 1½*d.* a pound, while in other districts he obtains 1½*d.*, and, in a few, as much as 2½*d.* a pound. The expenses of conveyance are calculated at 1*d.* a pound generally, but it is much less from some districts, and therefore we have the cotton of India, including the best Surats, selling at Liverpool at from 3*d.* to 5*d.* per pound, though the latter sometimes bring as much as 7*d.* and 8*d.* a pound on an average, as in the years 1839 and 1835. It has again during this year been selling for 6*d.* and 7*d.* a pound, and it has been stated in the late Bombay Report on Cotton, that an advance of ½*d.* per pound upon a price of 3*d.*, or 15 per cent., is sufficient to produce a healthy action upon the cotton trade of Bombay; while Mr. Bell equally calculates that 4*d.* a pound at Liverpool will pay all expenses, and yield a profit for the superior kind of cotton which he has cultivated near Agra. It is evident, therefore, that in point of price, India (notwithstanding the small returns of produce, which do not amount on an average to 100 lbs. per acre of clear

clean cotton), is able to contend successfully with America, and will be able to do still more successfully when all unnecessary expenses are diminished between the farm and the factory, and these are paid on a clean and unadulterated article instead of on cotton which contains about one-fourth of dirt and refuse.

The next point, and that of nearly as great importance as the former, is the quality of the cotton which can be obtained from India. This may be noticed under the heads of American and of Indian cotton.

Though the New Orleans cotton failed in the Doab, as it did in some other parts of India, it is now well known to have succeeded completely in some of the southern provinces, as in the Southern Mahratta country, and in the Coimbatore district. In the former, from 25,000 to 30,000 acres were in cultivation last year with New Orleans cotton; this was both grown and cleaned by the hand saw-gin by the natives themselves, and then sold to Government for 66½ rupees the candy of 784 lbs., and cost altogether, when sold at Manchester, under 4*d.* a pound. Of the 1,000 bales which have arrived, 500 have been sold for 6½*d.* a pound at Manchester; the rest still remains unsold at Liverpool.

Dr. Wight's cotton, cultivated in Coimbatore, is still more highly valued than that from Dharwar, being considered quite equal to fair New Orleans cotton, and valued at 6¾*d.* per pound. Several hundred bales have, I believe, been despatched to Liverpool by Dr. Wight, and he states that it may be landed there for 3½*d.* per pound. Mr. Turner, President of the Commercial Association of Manchester, in reply to some queries which I addressed to him last week, states, "I assure you the shipment of 1,000 bales of such cotton,* as per 'Quentin Leitch,' is an event of no small interest and importance. Let the Court, then, persevere by all means in introducing and encouraging the cultivation of American seed cotton in every district of India which is suitable for its growth, but especially in Coimbatore and Tinnevely."

The success which has attended the cultivation of American cotton in the above districts has had an unfavourable effect on the Indian cotton, as far as the opinions of some of the principal manufacturers are concerned, inasmuch as they seem to think, from the success attending what they consider the best kind of cotton, it is useless or unnecessary to take any trouble with the indigenous cotton, as unfit to supply the place of American cotton in our manufactures. Such being the opinions of some of the principal spinners, I found some difficulty in forming a correct opinion respecting the real value of Indian cotton, as I had heard different opinions from some others. In this dilemma I was induced to write to Mr. Turner, as above stated, requesting him to give me his deliberate opinion on the importance of the improved cleaning and culture of Indian cotton, and on the probability of such cotton continuing to be employed by spinners, even when American cotton is at a low price. I annex an extract from his letter in the margin,† as containing much valuable information, which is important from his position at the head of the Commercial Association of Manchester, and from his being himself one of the largest consumers of Indian cotton.

I.
Bengal and
North Western
Provinces.

Quality of American cotton grown in India.

Quality of Indian cotton.

The

* Grown by the ryots in Dharwar from New Orleans seed.

† "You ask, what is the Court to do as regards those districts in which the American plant will not thrive? My answer is, Encourage the growth of the best cotton which will grow; induce the natives to pick it carefully and to clean it effectually (which Mr. Mercer assures me can be done by the saw-gin, if the kupas is only kept free from the dry friable leaves of the plant by careful picking); discourage or prevent, by every possible means, the system of wilful adulteration, so injurious and so notorious; abolish the system of conveyance by bullocks, by making roads on which carts can travel; or, still better, make, or encourage others to make, railroads, by which means the cotton can be sent down in bales, and thus be preserved more free from dirt and adulteration.

"Such cotton, though not equal to what I expect will yet be grown in India from American seed, will always be saleable and useful to the manufacturers in this country at its fair relative value, compared with other cotton; and, if such cotton is shipped free from seeds, sand, and other filth which have heretofore prevented its extensive use, I have no doubt it will generally prove saleable at a price which will remunerate the growers.

"It is rather difficult to answer your question as to 'the real value of Indian cotton, supposing, the staple and character remaining as it is, you are enabled to have it clean picked and carefully ginned. There are various qualities of Indian cotton; the Broach cotton is generally the best. I also consider the Coompta cotton to have many good qualities; the best guide I can give you as to what I consider the relative value is, that, supposing Broach cotton to be carefully picked and saw-ginned, so as to be free from the minute fragments of leaf, which formed the great objection to the

I.

Bengal and
North Western
Provinces.

The Broach cotton is that generally considered the best, that from the Dharwar district, commonly called Coompta, is also esteemed for many good qualities, among which is strength of fibre. The indigenous cottons of the Bengal Presidency, being at present chiefly exported to China, are less known at Manchester, though the Bengal cotton is usually considered short and woolly in the staple. The cotton of Bundelcund has long been famous in India, but is not distinguished here.

It is evident that Indian cotton possesses some good qualities of its own; among these I may mention colour, swelling of the fibre in bleaching, and particularly the facility with which it takes colours in dyeing. There can be no doubt, therefore, of the importance of improving the indigenous cottons of India, even though they are not applicable to all the purposes of American cotton.

Improved Indian
cotton.

Various attempts have been made to improve the indigenous cottons of India in the course of the present experiments, both by cultivation, and by sending them in a cleaner state to market. Broach cotton, cleaned by the saw-gin by Dr. Burn, was approved of, and sold well at Liverpool. The cotton of Khandaish, cleaned by the saw-gin by Mr. Simpson and Mr. Blount, sold for 124 and 132 rupees the candy at Bombay, when cotton from New Orleans seed sold only for 113 and 120 rupees; though the preference of the Bombay merchants has not been confirmed at Manchester, where none of the samples of indigenous cotton, however clean, were considered equal to that grown from American seed. The indigenous cotton of the Dharwar district, or Coompta, has already been mentioned; it has one defect, which may easily be removed; but it is described by Mr. North, who is Mr. Turner's partner, and in charge of the North Shore Mills, as "about the best specimen of East Indian cotton we ever worked; in the carding and spinning it has given unqualified satisfaction." The indigenous cotton of Coimbatore, cleaned by Dr. Wight, has not yet been received.

The native cotton, cleaned by the saw-gins established at Agra, which was shipped to London, and received some months ago, was disapproved of from the shortness of the staple, and from this having been cut in the process of ginning. The cotton sold better than was expected from the then high price of cotton, but it was not considered at all fitted for the purposes of spinning.

Defect of some
saw-ginned cotton.

The method adopted with respect to the Coompta cotton was to purchase the kupas from the ryots, and clean it by the saw-gin. This mode has the advantage of a considerable effect being produced in a comparatively short time; but it has one great defect, which could not have been foreseen, but which has been discovered by the working of the cotton in the mill, and which it is feared will characterise all dirty Indian cotton cleaned by the saw-gin. The defect, as described in the Coompta cotton, is its "being so full of small shell dirt," which "appears to have been broken into such an infinity of minute particles, all adhering most pertinaciously to the cotton, so that it is utterly impossible to eject it." It is conspicuous in the carded cotton, and likewise in the yarn, of both of which I have received specimens, and would necessarily also be conspicuous in cloth made from it.

This defect appears to be owing entirely to the cotton having been carelessly picked, as is the case with almost all Indian cotton, when the bracts and leaves being in a dry state, break up and adhere to the cotton with much tenacity. When the cotton in the process of ginning is being carried by the saws through
the

saw-ginned Coompta cotton which Mr. Mercer sent home, I should order it at 1*d.* per pound below such cotton as the 1,000 bales *ex* 'Quentin Leitch'; and I should order Coompta cotton, similarly cleaned, at 1½*d.* less; so that, supposing the American seed cotton to be worth 6½*d.* I should value saw-ginned Broach 5½*d.* and Coompta 5*d.*

"I believe that if Indian cotton is sent home clean, there will be an increased demand for it; and that it is very unlikely that the spinners will discontinue to use it, even if American cotton recedes from its present value; though of course they would, in such case, only use it at its relative value compared with American. You need not fear that it will go out of use, if, as you say, it can be produced at 1½*d.* per pound by the ryots in India, as we have good ground for supposing that America cannot produce cotton within 50% per cent. of this price. You must, however, provide good roads, by which this cheap produce can be cheaply and expeditiously conveyed to the port of shipment, and at the same time be preserved free from adulteration."

the narrow grating, the broken leaf seems to be ground into fine spiculæ, which stick into the fibres of the cotton, and adhere to it with so much tenacity as not to be separated, even in the processes of blowing, carding, or spinning. The only remedy is to have the cotton cleanly picked as it ripens, which will add little to its expense, but add one-third to its value.

Another set of experiments has been made on indigenous cottons, by attempting to improve them by culture, and this not with inferior kinds of seed only, but with the best of different districts. In Broach, Dr. Burn tried the American method of culture on the native cotton. In Dharwar and Belgaum cotton was cultivated from Broach seed,* from that of Omrawuttee, and from that of other districts, and the same course has been followed by Dr. Wight, and in general with favourable results. But the American planters have observed, that in the west of India, as well as in the Nizam's territory, the cultivation of cotton is conducted in a superior style, embracing the drill husbandry and a rotation of crops, but that in the Bengal Presidency, including Bundelcund, the cultivation was susceptible of great improvement. Mr. Terry and Mr. Blount both cultivated the indigenous cottons of India; the one in the Doab, and the other at Goruckpore, and both with very promising results. But they have stated to me that they were prohibited from proceeding with this culture, because the experiments were said to be intended for the introduction of American cotton into India, and not for the improvement of that of India.

The cotton of Bundelcund has long been celebrated in India, but with it has probably often been confounded the cotton of Central India, which used formerly to find its way to the Ganges, but is now chiefly conveyed to Bombay. But Bundelcund itself is, no doubt, well suited to the cultivation of cotton, as it has always been supposed to be, and Mr. Mercer and Mr. Frost, as I have recently learnt, both consider the district as most favourable for the improved culture of cotton. Mr. Mercer would no doubt have succeeded in improving it, had he not been burnt out of his farm during the disturbances in that district in 1841. The cotton of Jaloun and Jhansi was formerly most celebrated, and Mr. Bell now finds that the cotton of Baugeeenee, a district on the south of the Chumbul, near Dholpore, and therefore probably very similar in soil and climate to that of Jaloun and Jhansi, which are not very distant, is that which is at present most in repute. This Baugeeenee cotton is that which Mr. Bell, after numerous experiments on all the varieties of seed which he was able to procure, found to be the best for cultivation in the Doab, and it is sufficiently esteemed by the natives to be able to command a higher price in the local markets. Mr. Bell states, "that a small parcel of the latter cotton which came into this market was instantly taken at about $7\frac{1}{2}d.$ per cent. higher than the rates paid for the other best reputed cottons." The quality was moreover highly approved of at Liverpool, for nine bales sent by Mr. Bell to Messrs. Nicol, Duckworth & Co. are reported as "pretty clean, but rather seedy, fair colour, staple fair length," and valued at $4\frac{1}{2}d.$ per lb. on the 6th February 1846, when fair qualities of Bowed Georgia were selling for $3\frac{1}{2}d.$, and the same quality of New Orleans cotton for $4\frac{1}{2}d.$ The samples of this cotton sent this year to the India House, and which I sent to Mr. Turner, were pronounced by him as saleable at $5d.$ a pound, though the staple was short, provided the cotton in bulk should prove as clean as the samples I sent him. Mr. Tetley, the cotton broker of London, who has been so long employed by the East India Company, values these cottons, supposing the bulk to be equal to the samples in point of cleanliness, at from $6d.$ to $6\frac{1}{2}d.$ per lb., the same price as middling to fair American.

There can be no doubt, therefore, of the goodness of this cotton, and of its fitness for some of our manufactures, and the fact is of importance, because this good cotton is not confined to one village, but may be procured from several of a quality little inferior, as the other sorts do not differ from the Baugeeenee more than from 5 to 7 per cent.

It is important, therefore, to determine whether a further attempt to improve the quality of the cotton in the North Western Provinces should be made, notwithstanding

I.
Bengal and
North Western
Provinces.

Improved culture
of Indian cotton.

Importance of
improving cotton
in India.

* This sold at Bombay for 125 rupees the candy, while that from New Orleans seed sold for 113 and 120 rupees.

I.

Bengal and
North Western
Provinces.

notwithstanding the recent failure of the American planters in the neighbourhood of Calpee. This might be considered decisive of the question, were it not for the fact that the attention of the American planters was chiefly directed to the New Orleans seed, which was found unsuitable to the climate, particularly in the two very dry seasons, which unfortunately occurred at the time of the experiments. Improved culture, as far as it was tried on the native plant, was, as I am informed, attended with favourable results. The great importance of the improved culture of cotton in India is sufficiently admitted by the establishment of the original experiments, and it is not of less consequence in the North Western Provinces than in other parts of India. In fact, the trade in cotton from Calcutta to Europe has greatly diminished, and that to China it is feared will follow the same course, as not only the cotton of the other Presidencies is becoming improved, but the Americans have begun to export their clean cotton to China. It is, therefore, of great importance to improve the cotton of North Western India, either by culture or cleaning, or still better, by both combined; and I have always regretted that one of the American planters was not retained, to endeavour to improve the cotton of the Doab, or rather that of Bundelcund, by the union of improved culture with careful cleaning.

Taking it for granted that the importance of improvement will be admitted, and neglecting the foreign cottons for the present, as unsuitable to the climate, at least with the present modes of culture, it remains to be considered how the native cottons can be improved.

Modes of improv-
ing Indian cotton.

The best method would appear to be, to select the districts where the best cottons are already produced, for the first experiments, as it may be presumed that fewer difficulties will have to be encountered, in improving the culture, or in introducing superior kinds of seed from other districts, if this should be thought expedient, and moreover, the experiments on early picking and careful cleaning would be made on an article which was already known to be of good quality.

Improved culture
of Indian cotton.

The next best method is to introduce good seed into districts where inferior cottons are produced, in order that this may be supplanted by a superior article, hoping that the qualities of the imported seed may be retained in the new situation, when this has the advantage of more careful culture, otherwise it does not follow that the new seed will give an improved produce beyond the first year. This method Mr. Bell has, from his local situation, been compelled to adopt. It has the important characteristic that failure would not deter from other attempts in more favourable situations, yet success under adverse circumstances of soil or climate would greatly stimulate exertion in all other situations.

East India House, (signed) *J. Forbes Royle, M. D.*
October 1847.

Home Department, Revenue.—No. 25 of 1848.

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

IN continuation of our Letter, No. 18, dated the 11th September last, we have the honour to forward the accompanying copy of a communication from the Government of Bengal, containing the information required by your Honourable Court, regarding the culture of cotton in India.

We have, &c.

(signed) *T. H. Maddock,*
F. Millett,
J. H. Littler,

Fort William, 18 November 1848.

EXTRACT from the Proceedings of the Government of Bengal, in the Revenue Department,
under date the 9th February 1848.

(No. 31.)

No. 3.

From *J. W. Dalrymple*, Esq., Officiating Under Secretary to the Government of Bengal,
to the Secretary to the Government, North Western Provinces.

Sir,

I AM directed to forward the accompanying copy of a despatch, No. 9, from the Honourable Court of Directors, dated the 10th November last, together with 10 copies of Dr. Royle's memorandum received therewith, and to request that you will, with the permission of his Honour the Lieutenant-governor, take measures to obtain the information required on the several points indicated in para. 2 of the Court's despatch, and furnish the same to this Government for eventual transmission to the Home authorities.

Revenue.

I have, &c.
(signed) *J. W. Dalrymple*,
Officiating Under Secretary to the Government
of Bengal.

Fort William, 9 February 1848.

EXTRACT from the Proceedings of the Government of Bengal, in the Revenue Department,
under date the 9th February 1848.

(No. 97.)

No. 4.

From *J. W. Dalrymple*, Esq., Officiating Under Secretary to the Government of Bengal,
to the Secretary to the Sudder Board of Revenue.

Sir,

I AM directed to transmit copy of a despatch, No. 9, from the Honourable Court of Directors, dated the 10th November last, together with 10 copies of Dr. Royle's memorandum received therewith, and to request that the Board will take measures to obtain the information required on the several points indicated in the second para. of the Court's despatch, and submit the same in such a form as may appear best calculated to meet the wishes of the Honourable Court.

Revenue.

I have, &c.
(signed) *J. W. Dalrymple*,
Officiating Under Secretary to the Government
of Bengal.

Fort William, 9 February 1848.

(No. 842.)

From the Under Secretary to the Government of Bengal to *W. Grey*, Esq., Under Secretary
to the Government of India, Home Department.

Sir,

IN compliance with the request of the Supreme Government, communicated in Mr. Secretary Bushby's letter, No. 598, of the 1st July last, I am directed by his Honour to transmit, in duplicate, the accompanying copy of a letter, No. 295, from the Secretary, Sudder Board of Revenue, dated the 27th ultimo, with enclosures containing the information required by the Honourable Court of Directors regarding the culture of cotton in India.

Revenue.

I have, &c.
(signed) *W. Seton Karr*,

Under Secretary to the Government of Bengal.
Fort William, 24 October 1848.

(No. 295.)

From the Secretary to the Sudder Board of Revenue to *F. J. Halliday*, Esq., Secretary
to the Government of Bengal, Revenue Department, dated Fort William, 27 September
1848.

Sir,

WITH reference to Under Secretary Mr. Dalrymple's letter, No. 97, dated the 9th of February last, transmitting copy of a despatch, No. 9, from the Honourable Court of Directors, dated the 10th of November preceding, together with 10 copies of Dr. Royle's memorandum received therewith, and requesting the Board to take measures to obtain the information required on the several points indicated in the second paragraph of the Court's despatch, and to submit the same in such form as may appear best calculated to meet the wishes of the Honourable Court, I am now directed by the Sudder Board of Revenue to request that you will lay before the Right Honourable the Governor the accompanying statement, exhibiting, in an abstract form, the replies of the local officers to the several queries put by the Honourable Court.

Mis. Dept.
Present: *J. Lewis*
and *E. M. Gordon*,
Esqs.

I.
Bengal and
North Western
Provinces.

2. His Lordship will be aware from the circumstances reported in my letter, No. 219, dated the 28th July last, that it is extremely difficult for Collectors in the Lower Provinces to collect statistical information of the present description with any great degree of completeness or exactitude, but that now furnished may, they think, be relied on as far as it goes, excepting perhaps the replies to the last query relative to the quantity of land under cotton cultivation, and the extent to which that cultivation might be increased, on which points they doubt if the local officers have the means of arriving at anything like a true estimate.

3. Copies of the letters specified in the annexed list, selected from the correspondence received, are also added, as containing particulars and remarks which may be thought to be of use.

4. The latest local return was received on the 18th instant.

I have, &c.
Sudder Board of Revenue. (signed) G. Plowden, Secretary.

LIST OF CORRESPONDENCE.

Letter of the Commissioner of Dacca, No. 179, dated the 5th instant.

Letter of the Commissioner of Assam, dated the 22d of May, No. 89.

Letter of the Officiating Collector of Goalparrah, No. 99, dated the 13th of May.

A note by the Collector of Chittagong, dated 31st March 1845.

(No. 179, of 1848.)

From J. Dunbar, Esq., Commissioner of Dacca, to the Sudder Board of Revenue,
Fort William.

Gentlemen,

I HAVE the honour to acknowledge the receipt of your Board's circular, No. 4, dated the 12th February last, with its enclosures, and in accordance with the instructions contained in the second paragraph, to transmit herewith a statement exhibiting the replies of the Collectors in this division to the several questions put by the Honourable the Court of Directors in regard to Indian cotton, with such general remarks on the subject as they have been enabled to offer.

Dacca.

2. The former civil surgeon of this station, Mr. James Taylor, in a statistical account of the district of Dacca, published some years ago, supplied some useful and interesting information respecting the cotton of this district, from which the Collector of Dacca has furnished the following extracts as bearing upon the subject of the capabilities of the district for producing a superior description of cotton. Mr. Taylor observes, "The material of which the fine Dacca muslins are made is entirely the produce of the Dacca district. The plant is an annual one, and attains a height of about five feet. It is described by Roxburgh as a variety of the *Gossypium herbaceum*, and is said to differ from the common cotton plant of Bengal in the following particulars: 1st. The branches are more erect, with fewer branches, and the lobes of the leaves more pointed. 2d. The whole of the plant is tinged of a reddish colour, even the petals and nerves of the leaves are less pubescent. 3d. The peduncles which support the flowers are longer, and the exterior margins of the petals are tinged with red. 4th. The staple of the cotton is longer, much finer, and softer. This is the Deseo, or indigenous cotton of the district, which has been cultivated in the Northern Division from time immemorial. The cotton of the present day, it is affirmed by the natives, is inferior to what it formerly was; the crops are less abundant, it is said, and the fibres, though apparently equally fine and soft, are shorter and more firmly adherent to the seed than the produce of former years. The Dacca cotton, however, notwithstanding the deterioration imputed to it, still ranks as an article of finer quality than the produce of other parts of Bengal, or of the Western Provinces. Of late years small quantities of it have occasionally been exported to the Calcutta bazars, where it always sells at a higher price than cotton imported from other parts of the country. Two crops are raised in the district; they are gathered in April and September, but the first yields the finest produce, and is the one that is chiefly cultivated. The cotton plant is liable to injury from hailstorms, heavy rains, and caterpillars; it impoverishes the soil, and the same field never produces successively more than two crops of good cotton. Formerly the ground for cotton was allowed to lie fallow every fourth year, and it appears to be owing to the neglect of this circumstance in the present day that the produce is now inferior in quality to that of former times. A good crop is estimated at eight maunds* per beegah. The average proportion of seeds to wool

* The collector remarks: "Mr. Taylor estimates the produce of a beegah much higher than I have stated it to be, but it is probable he meant a larger beegah than that in common use in Bengal, as from all the information which I can obtain the produce of a Bengal beegah does not exceed two maunds."

wool is about three quarters, or 32 seers of the former in one maund, or 40 seers of the uncleaned cotton. The Northern Division of the district produces the best cotton, and in the situation, especially that portion of it bordering upon the Megna and Berhampooter, in Sonergong, Capassia, Toke, and Junglebarree, in which this article was chiefly cultivated in former times. The soil here, it may be remarked, possesses the different constituents that are supposed to be essentially necessary to the formation of good cotton ground in America; and it is perhaps to this circumstance that the superiority of the Dacca cotton over that grown in other parts of Bengal is to be attributed."

I.
Bengal and
North Western
Provinces.

3d. The officiating superintendent of Cachar offers the following remarks on the cultivation of cotton in the province under his charge: "The Nagah and Kookee tribes who inhabit the hills in different parts of the district, are the only people who cultivate cotton in Cachar. I do not believe that there is one acre of land under cotton cultivation in the plains, or cultivated by the inhabitants of the plains. These hill people are very rude farmers; they first cut down all jungle on the side of a hill, then burn it; that is all the preparation the land gets; when the season comes round, they sow their seeds, three or four different kinds, all in the same spot, cotton, rice, pepper, &c. The first ripe is the first cut. They seldom cultivate the same hill more than two seasons running; within the last year some 2,000 Kookees have taken up their abode in the district; they will all cultivate cotton, for which reason I am of opinion that the quantity cultivated next year will be double what it has been this. Both Kookees and Nagahs are poor, and I fancy idle; they only just cultivate enough to keep themselves from want, they bring their produce to the different marts, and barter away the greater part of it for one-half its value.

Cachar.

"During the current year there were about 225 kulbas or 2,700 kears of land upon which cotton was cultivated, yielding from 2½ to 3 maunds the kear, or say, 7,000 maunds the whole produce of the district; of which from 4,000 to 5,000 maunds have been sent out of the district.

"Owing to the careless way of cultivating cotton in Cachar, the colour of it is not good, not so white as it ought to be, but it is very strong, and cloth made of it is much more durable than other cloths. In order to give you an idea of the proportion of seed to cotton, I had one seer of 90 tolaks kapass weighed in my presence. I had it cleaned with the churkee; the result was as follows; viz., of seed there were 51 tolaks, cotton 37 tolaks, and dirt, &c. 2 tolaks. One maund of kapass (90 tolaks to the seer) is equal to 90 lbs. The prime cost of which would be, say Rs. 3. 4., the cleaning 12 annas. The result would be 37 lbs. of cleaned cotton for 4 rupees; the expenses attending on the conveyance of which to Calcutta, together with the charge at transit ghaut, would be about 5 annas 4 pie. From which I calculate 37 lbs. of cotton, freed from seed, might be delivered in Calcutta, all expenses paid, for Rs. 4. 5. 4., which in English money would be equal to 8s. 8d., or about 2½ d. per pound."

4th. The other revenue officers of this division have made no observations on the cultivation of cotton in their respective districts, beyond what are to be found embodied in their replies to the questions of the Honourable Court.

5th. Mr. Allen, the officiating collector of Mymensing, is the only one who has entered into a discussion of the probability of the Indian cotton entering into successful competition with the produce of America in the English market. He does so in the following terms: "I think that India will never be able successfully to compete with America in the production of cotton for the English market; a party in England seems to hold the contrary opinion; it may be pampered by protection, by experimental cotton farms, by the ingenuity of railway speculators, and the like; but in the end I am persuaded that the incapacity of India will be apparent and acknowledged. There is so much against India; there is so much in favour of America. In this ancient and populous country, where land is valuable and rents high, where agricultural science is almost unknown, and the want of skill, energy and enterprise of the agricultural population is proverbial, where the produce is so inferior, and the cost of transportation necessarily so high, competition with America seems a hopeless task. In America the produce is so very superior, the cultivation is carried on with every agricultural improvement upon a vast, rich, and perhaps rent-free virgin soil, by the most hardy, energetic, persevering, slave-driving race in the world. The advantage of the geographical position of America need not be insisted on, it is so apparent. Can the Indian cotton grower reasonably hope for success against such odds as these?

"It has been lately remarked by a very able and acute writer upon the cotton question, that although many of the products of India, such as sugar, indigo, lacdye, raw silk, &c., have been brought with a profit into the markets of Europe, by European skill and enterprise, the British capitalist has never been tempted into the culture of cotton; it is well known what vast sums have been lavished on other agricultural and manufacturing speculations in India; it has been urged that had there been a moderate chance of success, cotton would have been tried as well as other things. The spirit of speculation in India, though not always honest, has been ever rampant; Indian speculators have dabbled in tea, timber, rice, indigo, rum, and other very numerous et ceteras, and why have they all unanimously left the culture of cotton alone? I have never heard that even the Calcutta Union Bank exercised its ingenuity upon a cotton plantation. When the cotton question comes to be

discussed,

discussed, this fact must be considered and inquired into. My own impression is, that under the present aspect of affairs, no human means, not all the strength and wisdom of a powerful and enlightened Government, will enable India to meet America in the English cotton market with any prospect of successful competition."

6th. From the local returns then it would appear that the only two districts within this division, in which cotton can be said to be grown for the market, are Cachar and Dacca. The former in an agricultural point of view may be regarded as quite a new province, the resources and capabilities of which are just only beginning to be developed. The cotton cultivation is at present chiefly confined to the slopes of the hills; but the climate is in the main so similar to that of Eastern Bengal generally, that I see no reason why the plant should not thrive in the plains. I do not say that I have any good hope of Cachar ever yielding cotton to such an extent, or of such a quality, as to give it a permanent place in the export market; yet small and thinly inhabited as the province is, it seems desirable to afford every possible encouragement to the cultivation of cotton. If the cultivators can dispose of their produce in the country marts to advantage, they will find in it, at the least, one source of increasing their means of subsistence; and if in the long run it should be found to succeed so far as to make it worth while to export the produce, so much the better. I shall accordingly take an early opportunity of sending a small quantity of cotton seeds, both foreign and indigenous, to the superintendent of Cachar, with a view to its distribution amongst the ryots.

7th. In the district of Dacca there can be no question, as Mr. Tottenham remarks, that cotton is now much less extensively cultivated than it used to be. The mere knowledge of the fact, however, that the cultivation was at one time considerable, is surely sufficient to warrant the belief that proper encouragement is alone wanting to restore it. The cotton grown in some parts of this district would appear to be, upon the whole, a finer and more delicate product than any other cotton in the world. From this circumstance, and from the wonderful fineness of touch in the hand of the females employed in spinning it, arose that superiority in the Dacca muslins, which for a long time seemed to defy competition, and which even now perhaps leaves every other fabric behind in fineness and delicacy of texture. The call for such cloths, however, has in a great measure passed away, and English manufactures of a description suited to the wants of every class can be brought into the Indian market at a cost so moderate, that the Dacca muslins, the produce of mere manual labour, cannot hold their place against them. This has, as a matter of course, had the effect of greatly reducing the cultivation of cotton in the district, yet its capabilities in point of soil and climate are just what they were, and it is upon this that we ground our hopes of being able to introduce the cultivation of other cottons, such as Patna, American, and Bourbon, of a hardier nature than the indigenous plant, and yielding wool of a longer staple, and consequently better fitted for the English market.

8th. Mr. Allen, the officiating collector of Mymensing, it will be observed, has taken rather a gloomy view of the subject; he considers it hopeless, in fact, that India should ever be able to compete with America in cotton. Whatever doubts the absence of success heretofore may sometimes force upon us, I am altogether opposed to our taking the inferiority of India for granted. There is no commercial object connected with our Indian possessions of greater national importance than the culture of cotton, so as to render it a productive article of export to Europe, and I am clearly of opinion that we should not stop till we have placed the possibility or impossibility of giving the English manufacturers the raw material of a quality equal to the American, and at the same or a less cost; beyond question. I do not think that we have by any means yet come to that point at which it would be advisable or expedient to hold hard; our experiments here are but on a small scale, compared with what has been done and is still doing in the north-west, and at the other Presidencies, but I am keen for going on with them, knowing as I do, that for centuries past the soil and climate of this district have produced cotton from which the most beautiful fabrics ever seen have been spun; and believing, as I do, that great and important ends are seldom attained without patient, long-continued and laborious application.

9th. If we can but succeed in growing good cotton in this district, I should have no fear of our being able to deliver it in the home market at a cost sufficiently moderate to enable it to compete with that from any other part of the world. Land here is abundantly plenty, labour is very cheap, and we have an advantage of the utmost importance in the great facility of intercourse by water. From what is stated in the quotation which Dr. Royle gives from the letter of the President of the Manchester Commercial Association, it would appear that the Indian cotton sent home is found to be greatly deteriorated from the system of conveyance by bullocks, which no doubt exposes it much to dirt and adulteration. This is an evil to which we should be in no degree subject here, as there is no part of the district from which cotton might not be brought away without further exposure than that which would be incurred in carrying it from the ryots' houses to the boat; probably a distance of less than a mile. Mr. Turner's letter contains one excellent piece of advice, to which I think all who are interested in the cultivation of cotton in India would do well to attend. In districts in which the American plant will not thrive, he says, "encourage the growth of the best cotton which will grow." This is the principle upon which I have enjoined Mr. Price to proceed. Nothing disgusts the ryots more readily than being kept, year after year, to the culture of an unsuccessful crop; even if they are not themselves subjected to loss by the

the result, they lose heart about it, and become careless; but give them a cultivation which thrives under their hands, and let them see that it only requires to be followed up to pay them well for their labour, and we may rely upon it, it will be taken up with that avidity which self-interest and the prospect of gain never fail to engender.

I.
Bengal and
North Western
Provinces.

I have, &c.
(signed) J. Dunbar,
Commissioner's Office, Dacca Division, Commissioner of Revenue.
Dacca, 5 September 1848.

Sudder Board of Revenue, Fort William,
27 September 1848.

(True copy.)
(signed) Geo. Plowden, Secretary.

(True copy.)
(signed) W. Seton Karr,
Under Secretary to Govt., Bengal.

(No. 89.)

From Major F. Jenkins, Commissioner of Revenue, Assam, to the Board of Revenue,
Fort William, dated Gowhatty, 22 May 1848.

Gentlemen,

With advertence to your circular orders No. 4, under date the 21st February, I have the honour to annex copies of letters, as below,* from the collectors of this division, for the Board's information relative to the cotton cultivated in this province.

2d. In this division cotton forms the staple article of export, but it is principally cultivated by the Garrows in their hills; though there is very much high land in the division under the hills which seems well adapted for cotton, as pointed out by the collector.

Gowalparah.

Almost all the cotton is exported uncleaned, and chiefly in a dirty condition, being sold at two and a half to three rupees a maund to the small traders, who supply the neighbouring zillahs of Bengal.

The export probably exceeds 100,000 maunds a year, and I believe the cultivation could be very greatly extended; that is, there is favourable ground totally unoccupied for twenty times that quantity of cotton; and any circumstances which caused a very trifling rise in the price of the wool would, I imagine, be attended with a great increase in the cultivation of the cotton-plant.

The quality of the cotton is very inferior with reference to its applicability to machinery; it is coarse and short-stapled, but it is very strong, and the plant is very productive.

Captain Reynolds proposes a small experimental farm on the hill at Gowalparah; but this, applying only convict labour, would be on so small a scale, that I should not imagine it would be of much use. There is a vast quantity of available good cotton land close to Gowalparah, however, should it be considered expedient to extend the small experimental cultivation Captain Reynolds alludes to,

3d. In this division little cotton is cultivated, but there is abundance of favourable hill land for cotton on the hills which form the southern boundary of Kamroop.

Kamroop.

4th. In this division the little cotton cultivated is almost wholly consumed in domestic manufactures, but the extent of available high plains, which I imagine, are well adapted for the superior cultivation of foreign cottons is very large.

Durrung.

5th. Cotton is grown largely in parts of this division, and much is imported from the Nagah hills, on the southern frontier; so that, after supplying the domestic demand, a considerable quantity is exported. The quality of the cotton is much the same as that of the Garrow Hills, but it fetches rather a higher price in the common mart of both, Gowalparah. The hill land fit and available for cotton is of prodigious extent, and I think that grown in the mountainous tract of northern Cachar is, in the weight of the pods and the size of the plants, superior to any I have seen elsewhere.

Nowgong.

6th. Almost all the cotton which is exported from this division is produced in the Nagah Hills, where there is the same favourable ground for the culture of this plant as in the preceding division.

Seeb sagur.

7th. The cotton of this division is decidedly superior to that of the other divisions, as it freely fetches at least one rupee a maund higher price at Gowalparah. This may be owing to the different kind of land on which it is grown, for here the plant is solely raised on the high

Luckimpore.

* Gowalparah, No. 99, 13 May; Kamroop, No. 27, 20 May; Durrung, No. 24, 29 April; Nowgong, No. 11, 9 May; Seeb sagur, No. 4, 6 May; Luckimpore, No. 80, 9 April.

I.
Bengal and
North Western
Provinces.

high flat plains which form so large a portion of the country between the Dehing River, the Burrumpootur, and the Eastern Hills.

I conceive these high plains are as well adapted to the growth of cotton as any in India, and if any experimental farm for the growth of this article should be allowed to be tried in Assam, I should propose its being established in Muttuck. The lands are high and well-drained, but the climate is cool and wet; in these respects resembling much, I imagine, the climate of Coimbatore and Tinnivelly, districts about the wettest in India, which are so favourably noticed in Dr. Royle's report to the Honourable Court of Directors for the growth of American cottons; and it may be worthy of notice, that a small quantity of cotton raised in Muttuck from American seeds, but without any care in the cultivation, was particularly beautiful in its colour, and of fine silky feel, and long in the fibre.

I am fully persuaded that good cotton could be grown in the Muttuck districts from the superior indigenous seeds and the acclimatised American seeds, but the great drawbacks to any experiments that have hitherto been made to introduce seeds from other countries, is the state of the seeds by the time they reach Assam, and the unfavourable season at which they have been received. The consequences have been great disappointment on the part of the natives who have tried the seeds, from their universal failure, and their imbibing a notion that only the seeds of the country can be grown on their lands. By sending, however, the seeds now by the steamer, much of the former bad results would be obviated.

I would beg to call the notice of Government to the means we have of trying an experiment in the cultivation of cotton in Muttuck, at a very trifling expense. I allude to the employment of the superintendent of the Government tea plantations for the charge of the cotton farm. There are excellent lands, the property of Government, in the immediate vicinity of the tea barrus; and thus, as by putting the cultivation under Mr. Lumpingyong, the expense of superintendence would be saved, and the sole expense would be the labour of cattle and ryuts. Efficient trial of all the kinds of seeds procurable could be made at so small a cost, that I would beg to call the favourable notice of the Board to this subject, and to request their recommendation to the Right honourable the Governor of an experimental farm, however small at first, being established in the Muttuck division, under the control of the superintendent of the tea plantations.

This farm would by no means interfere with the tea plantations, but rather would assist them, and cheapen all operations, as the coolies would be retained in more permanent employ, and the fixed establishment would be available for overseeing and directing the cotton cultivation.

I have, &c.
(signed) F. Jenkins,
Commissioner of Revenue.

Revenue Commissioner's Office, Assam,
22 May 1848.

Sudder Board of Revenue, Fort William,
27 September 1848.

(True copy.)
(signed) Geo. Plowden, Secretary.

(True copy.)
(signed) W. Seton Karr,
Under Secretary to Government, Bengal.

(No. 99.)

From Captain C. S. Reynolds, Officiating Collector, Zillah Gowalparra, to Major F. Jenkins, Commissioner of Revenue, Assam; dated, Gowalparrah, 13 May 1848.

Sir,

I HAVE the honour to acknowledge the receipt of your letter, No. 90, of the 16th March 1848, enclosing a circular, No. 4, of the 21st February last, from the Secretary to the Sudder Board of Revenue, giving cover to the copy of a despatch from the Honourable Court of Directors, dated the 10th November last, relative to the introduction of American cotton into different parts of India, the improvement of the indigenous cotton, and the probability of Indian cotton entering into successful competition with the produce of America in the English market, and I have now the honour, in obedience to the instructions contained in the 2d paragraph, to submit my replies to the questions therein furnished.

Question 1. What is the price of cotton, freed from seed, at the principal mart or marts in your district?

Answer. The principal market in this district is Gowalparah, and selling price of cotton cleaned, of all descriptions, Garrow and Assamése, is Rs. 8. 8. to 9 rupees per maund of 80 tolas.

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?

No advances are at present made by the merchants to the Garrow cultivators of cotton, and the rate at which it is generally disposed of by them at the Garrow Hauts is from 2 rupees to Rs. 2. 4. per maund uncleaned; the little brought down cleaned, averaging perhaps

perhaps 1,000 maunds annually, fetches at the rate of Rs. 4. 12. to 5 rupees per maund at the hauts under the hills.

3. What is the expense of cleaning cotton by the churka or foot-roller, or by any other method which may be in use?

The expense of cleaning cotton by churka, the only instrument, is about 12 annas per maund. Garrow cotton contains equal portions of seed and cotton, while the Upper Assam only yields 16 seers per maund of the latter, the remainder being all seed.

4. What are the expenses of conveying cotton to the nearest market?

The cost of transit to Calcutta from Gowalparrah is about 4 annas per maund by country boats. By steam the cost would be—.

5. What is the average produce of cotton per beegah or acre?

About 3 to 3½ maunds per beegah of 16,00 square yards, or 40 x 40 yards.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried, in the event of any increased demand?

I have no means of ascertaining the quantity of land under cultivation correctly, as the whole of the cotton sold at the hauts is the produce of the Garrow country, which is unsurveyed, and with the chiefs we have no regular settlement.

By referring, however, to the returns of Sayerat collections for 1842, the quantity of cotton brought down that year appears to have been about 45,000 maunds, which if taken at the above average produce will give the quantity of land under cultivation as 15,000 beegahs, but I believe this is not even an approximation to the real amount, for it is well known that the cotton brought down was much under-rated by the native officials in charge of the Sayerat duties for their own benefit, but as it is impossible to obtain more correct data at present, it is useful to know that the quantity of land under cotton cultivation is certainly not less than what I have stated. The cultivation may be increased to any amount that the industry of the people will allow and increased demand call for.

2d. Cotton is but triflingly cultivated by the inhabitants of this district; the Mechs, Hagons, Robahs, &c., who occupy the off-shoots of the Garrow Hills, generally plant sufficient for their own use, but no more, and the Garrow Hills, which form the southern boundary of this district, inhabited by a hardy and industrious race, produce the whole quantity sold at the hauts; cotton may be said to form the staple produce of these hills, which are too poor in soil to yield sufficient grain for the wants of the population. The Garrows are therefore compelled to cultivate a crop adapted to the soil and climate, and which they can at all times readily barter for food and other requisites of the plains. The improvement of the cultivation and introduction of a superior species of cotton to that at present sown, is therefore of the first and greatest importance; but the superstition of the Garrows presents a formidable obstacle to this most desirable object, as they refuse to plant any other seed than their own, lest they should incur the wrath of their gods, and their lands be cursed with infertility. The only way we can hope to overcome these prejudices is by introducing amongst the Garrows and Robas of the plains a better species of cotton. These people are less superstitious than their brethren of the hills, and might be persuaded to cultivate it, and it is to be hoped, that as the hill people saw no harm accrue to them from the cultivation, they would gradually take to it.

3d. The zemindars of the district however show so little desire to improve the condition of their ryots, or develop the resources of their lands, that the Collector can scarcely calculate on any assistance from them in carrying out schemes of improvement connected with the district itself, much less those for the improvement of the industrious race that inhabit the hills to the south. If, however, the zemindaree of Hubraghat, which sooner or later must be brought to the hammer by the creditors of the present proprietor, was purchased by Government, and brought under special management, we might, by means of the Garrows who hold lakheraj lands in this pergunnah, introduce amongst them, and afterwards amongst the hill Garrows, not only a superior kind of cotton, which article forms the staple produce of their country, but also many other improvements which would lead to the gradual civilization of this neglected but industrious race, who now know no art or manufacture, even of the rudest kind.

4th. It is only through the medium of the Garrows and Robahs of the plains we can hope to do anything with this people, and as the zemindars will give us no assistance with them, we never can expect to do so, unless we get some of the lands under the hills into our own management.

5th. Perhaps no portion of Assam presents so many facilities for the cultivation of cotton as the high lands found throughout this district, and the Garrow hills to the south of it. The climate is congenial to the growth; the lands are above inundations. The soil is good, and throws fair crops, and there is abundance, fit to produce any quantity of cotton that may be required, and the industry of the people will permit; the facilities of carriage are perhaps unequalled in any part of India, as all the Garrow markets are situated on navigable rivers, tributaries of the Burhampooter, and the cotton is cheaply and easily transmitted in small boats to the ghauts on the latter river, from whence it is re-shipped for other markets. The expense therefore is trifling, but what is of greater importance, the exporter is able to send the cotton down in better order, and cleaner, than he could by land carriage.

I.
Bengal and
North Western
Provinces.

6. From the information of the merchants and others of this place, I believe that little or no cotton finds its way below Serajgunge, if even so far as that; the whole quantity brought into the market here is purchased by some merchants of Koorygong Rungpoor, who transmit it to their correspondents at that place, where it is disposed of to the weavers and others of that district. The whole quantity brought also to the Garrow' hauts is purchased and disposed of in the same manner. The cloths wove from the cotton are, I believe, of a coarse description.

7th. An opinion, whether American or any other cotton may or may not be successfully introduced into this district, can only be adduced from experiments, and, as far as I am aware, none have ever been made; but as it appears an object of the first importance that some endeavours should be made to introduce a better article amongst the Garrows than that they at present grow, I would beg to suggest that a small portion of land on the Gowalparah hill should be brought under cultivation with convict labour, and every sort of cotton procurable, and worth growing, should be tried. The climate and soil of Gowalparah assimilates so closely to that of the Garrow hills, that I should think any vegetable production which would succeed on the one, would on the other; at the same time seed might be introduced amongst the Robahs, Mechs, &c., but little dependence could be placed on their reports, and the only satisfactory method of solving the question is by actual experiment, and should my proposal meet with approval, I shall be most happy to give it my very best attention.

8th. In conclusion, I beg to say, that if it was found impossible to introduce a better sort of cotton amongst the Garrows, or that it would not succeed, it might still be useful to encourage the extension of the Garrow cultivation, as it would supply the place of better cotton grown in other districts, which might be exported. I am, however, very sanguine, that in time we may, by perseverance and encouragement, introduce a much better species of cotton into the Garrow hills than produced at present.

I have, &c.
(signed) C. S. Reynolds,
Officiating Collector.

Sudder Board of Revenue, Fort William,
27 September 1848.

(True copy.)

(signed) George Plowden, Secretary.

(True copy.)

(signed) W. Seton Karr,
Under Secretary to the Govt. of Bengal.

NOTE on the Cotton of the Chittagong District.

FROM an early period, for the last 70 years, and I know not how long before, cotton has been an established product of this district. In the early times it consisted, generally speaking, of two sorts, that grown in the frontier hills and that grown in the plains. The latter sort would appear to have been encouraged by the local demand, arising from the manufacture of cotton stuffs in the Government factory, but since this was abolished, the cultivation of cotton in the interior of the district seems to have been discontinued; at all events, the quantity now grown is very limited, and the hill cotton only, from the extent to which it is cultivated and the trade which it fosters, is worthy of notice.

Cotton is the grand staple of the Joomeas, or hill people, throughout the extent of our long frontier, from the River Fenny, which separates Chittagong from Tipperah, down to Teknaaf, the Arracan border. They are but rude farmers. A hill side is cleared from the surface wood; the land is neither ploughed nor dug, and with the commencement of the first rains the seed is sown. Rice, gourds, pepper, cotton, are all dropped in the same hole. First ripened is first reaped. The cotton is gathered in the months of October, November and December. The same hill is used only for two or three years, when it is abandoned, and a new clearance made.

I subjoin an estimate of the quantity of cotton grown during the last two years, giving also the localities, though perhaps it might be sufficient to state the gross result:—

Crop of 1844-45.			Price.	Crop of 1843-44.			Price.
			Rs. a.				Rs. a.
Futtikcherree	-	8,000 maunds	- 2 8	-	10,000 maunds	- 2 -	
Rangooneah	-	15,384 "	- 3 4	-	22,222 "	- 2 4	
Satkuneah	-	14,285 "	- 3 8	-	22,222 "	- 2 4	
Chukera	-	14,000 "	- 2 8	-	15,555 "	- 2 4	
Ramoo	-	8,333 "	- 3 -	-	11,111 "	- 2 4	
Teknaaf	-	10,000 "	- 2 8	-	12,500 "	- 2 -	
		<u>70,002</u>			<u>93,610</u>		

This

This estimate is based, not upon a calculation of the lands cultivated or the cotton picked (which under general circumstances is impossible), but upon the traffic after it has left the hands of the Joomeas, and the capital turned over by the dealers interested in the trade.

The estimate is made of the uncleaned cotton; commonly two-thirds go to seed, and one-third is yielded of clean cotton or rooe; but in some sites, chiefly, I am informed, where the soil is better, the cotton is not only of a better quality, but the bulk and weight of seeds diminish, while the clean cotton increases. In Satkunneeah as much as two-fifths of clean cotton is picked. I observe, from specimens now before me, that the staple of the Satkunneeah cotton is finer and longer; but, as I have said, this is ascribed to the soil, and not to a variety of the plant. There are always two, often three, parties engaged in the transport and purchase of the cotton between the cultivators and its final export from the district. Beoparees from the plains go into the hills to purchase it, either as agents or as principals. It is then stored in golahs, and from these golahs it is bought by outside merchants residing at Naraingunge (Dacca) or other towns in eastern Bengal.

The prices which I have given above are the average of the first purchase made by the Beoparees. Between them and the Joomeas others often intervene, and of course intercept a portion of the profit. In reselling the cotton for export, the Beoparees make at least one rupee per maund. This year, in Satkunneeah, the durung or golah price is Rs. 5. 8., which is an advance of two rupees above the prime cost. But it is not in this only that the profit of the home merchant consists. The Joomeas, however crafty in matters within their own cognizance and under their own control, are beaten in barter. It is not to be supposed that they get the worth of their goods, but they get less than what a knowledge of the weights and prices of the plains would enable them to secure. Rude scales are used, and heavy weights, 50 or 60 seers to the maund.

Besides the cotton carried out of the district, to which my estimate is chiefly confined, a good deal is left for home consumption. Perhaps the ordinary crop of the district may be expressed at 75,000 maunds seed cotton, or 25,000 maunds cleaned cotton; this would be two millions of pounds.

To the home dealer the purchase of cotton involves an outlay of about 20,00,000 rupees; to the exporters about 3,00,000 rupees; but much of these sums may be supposed to be one capital twice used.

At the rate of Rs. 2. 8. a maund for seed cotton, the equivalent price in English money would be $2\frac{1}{2}$ d. the pound. One maund of seed cotton would give, say $12\frac{1}{2}$ seers, or 25 lbs. rooe for Rs. 2. 8., say 5s., i. e. 5 lbs. to the shilling. This may be taken with sufficient accuracy to show at what price the cultivators can afford to grow the staple. Some years back much higher prices ruled; the fall is said to be owing to the greater importation and use among native weavers of English thread. But even now the common retail price of cotton, current in a country where the staple is indigenous, compared with prices in England, seems extremely high; in the bazars here it sells at three seers to the rupee, or four annas to the pound.

(Copy.)

Chittagong, 31 March 1845.

(signed) A. Sconce, Collector.

(A true copy.)

(signed) R. Frank, Head Clerk.

Sudder Board of Revenue, Fort William,
27 September 1848.

(True copy.)

(signed) G. Plowden, Secretary.

(A true copy.)

(signed) W. Seton Karr.

Under Sec. to the Govt. of Bengal.

ABSTRACT of the REPLIES of the Local Authorities to the Board's Circular of the
of Cotton in India, as required by the

DIVISIONS and DISTRICTS.	1. What is the Price of Cotton, freed from Seed, at the principal Mart or Marts in your District?	2. At what Price does the Ryot sell his Cotton, cleaned or uncleaned, and with or without Advances?	3. What is the Expense of cleaning Cotton by the Churka or Foot-roller, or by any other method which may be in use?
MOORSHEDABAD:			
Rajshahye - -	The usual price of cotton freed from the seed is for first quality eight to nine rupees per maund of 61 lbs. avoirdupois, and second quality six to seven rupees.	The quantity of cotton grown in this district is extremely small, and is generally consumed by the producer, but when any pressing necessity compels the grower to sell it in a raw state, it usually fetches from 1 to 1½ anna per seer of 60 tolaks.	The expense of cleaning cotton is said to be about one rupee per maund by the churka.
Beerbhoom - -	Cotton freed from seed is sold at about 10 rupees per maund; that with the seed in it at about three rupees.	The ryot cultivates at his own risk, and no advances are made him; he disposes of his cotton as per preceding column, and his profits are about 8 to 12 annas per beegah, the expenses of cultivation and rent of land, &c., being about nine rupees per beegah.	Cotton is cleaned by the common churka, and the expense is from six to ten annas per maund. The work is performed by the women of the family, each woman cleaning about two seers in half a day.
Bograh - - -	Not stated - - - -	Not stated - - - -	Not stated - - - -
Rungpore - -	The price varies in different parts of the district. In Pergunnah Bahirbund, &c., it is from 6½ to 7 rupees per maund of 60 sa. weight to the seer for cotton freed from the seed, and uncleaned at Rs. 2. 12.; in Coondy, good cotton freed from the seed sells at 2½ seers per rupee, of 90 sa. weight to the seer; in other parts the price is 10 to 11 rupees per maund of 90 sa. weight to the seer, and sometimes even as high as 15 rupees, according to quality.	There is no cotton cultivation at present in the district. The ryots retail the article which is supplied from other districts.	The only method of cleaning cotton in this district is by the churka; the expense is from 1 to 1½ rupees per maund.
Pubna - - -	Cotton is not grown in this district, the soil being unfavourable to its cultivation.		
Moorshedabad -	The principal cotton mart in this district is Jeagunge, where cotton freed from seed sells at from eight rupees to Rs. 10. 12. per maund, according to quality. The cotton is brought to this mart from Mirzapore, and thence finds its way to every part of the district for local consumption.	In Noorye thanah there are a few acres of land under cotton cultivation by a Hill tribe called Sowntat; the produce is of the worst sort, and is sold by the cultivators in an unclean state to their neighbours at the rate of 16 seers per rupee, as required for local consumption.	The only cotton produced in the district is in the Noorye thanah; it is never cleaned by the cultivators, but sold in its raw state. The purchasers clean it by means of the churka at a cost of four annas per maund.

21st February 1848, calling for certain Information relative to the Cultivation, &c.,
Honourable the Court of Directors.

4. What are the Expenses of conveying Cotton to the nearest Port for Shipment?	5. What is the average Produce of Cotton per Beegah or Acre?	6. What is the quantity of Land under Cultivation with Cotton, and to what extent is it probable that the Cultivation could be carried in the event of an increased demand?	ABSTRACT of COMMISSIONER'S REMARKS.
The expense of conveyance to Calcutta is about $1\frac{1}{2}$ anna per maund by water; land carriage would hardly be necessary at all. The whole of the produce is used in the district.	The produce of a beegah, when freed from seed, is said to range from 2 maunds to 2 maunds and 10 seers of 61 lbs. avoirdupois; the beegah being equal to one rood, 12 perches, and 27 yards. A beegah will produce from $2\frac{1}{2}$ to 3 maunds of 40 seers; three beegahs are about equal to one English acre.	The cultivation does not exceed 2,000 beegahs, and the produce is insufficient for the consumption of the inhabitants of the district, to supply whose wants large quantities of raw cotton are imported from the North Western Provinces. There is very little prospect of the cultivation being extended. The cultivation consists of about 1,500 beegahs, and might be increased to five times that quantity. It requires the best description of land where the means of irrigation are handy. The cotton grown is of the indigenous sorts.	The Commissioner says that the only district in this division, the soil of which is favourable to the cultivation of cotton, is Rungpore; where Mr. Terry, an American cotton planter, was some time employed conducting experiments at the cost of Government.
Not stated - - -	Unknown - - -	The cultivation of cotton is exceedingly trifling, and it is grown thinly scattered among pepper, turmeric, &c., for domestic purposes only; the extent to which it could be grown is not capable of estimation.	
As no cotton is exported, the expense of conveyance cannot be computed.	Cotton is not cultivated in this district.	There is no cultivation, but if introduced, it might be carried to a considerable extent. On the Carjeehaut estate the zemindar says he has about 1,000 beegahs of land available for the purpose; and the experiments under Mr. Terry tended to show that some parts of the district are favourable to the cultivation of the plant.	
The expense of conveying cotton from Jeagunge to Calcutta is 20 rupees per 100 maunds; the maund consists of 40 seers of 80 tolahs each.	The darogah of Noorye estimates the average produce to be 15 seers of 80 tolah weight per beegah, equal to one-third of an English acre.	The quantity of land in cultivation is about 500 or 600 beegahs, and 100 or 200 beegahs further are available in the Noorye thanah for the cultivation. The article is produced in no other part of the district.	

(continued)

ABSTRACT of the Replies of the Local Authorities to the Board's Circular of 21 February 1848,

DIVISIONS and DISTRICTS.	1. What is the Price of Cotton, freed from Seed, at the prin- cipal Mart or Marts in your District?	2. At what Price does the Ryot sell his Cotton, cleaned or uncleaned, and with or with- out Advances?	3. What is the Expense of clean- ing Cotton by the Churka or Foot-roller, or by any other method which may be in use?
NA: Patna - - -	The price of cotton of indi- genous growth is about nine ru- pees per sa. maund. The im- ported cotton usually sells at about half a rupee per maund less on account of adultera- tions and injury occasioned by transit.	Cotton is cultivated on the best village lands, affording fa- cilities for irrigation and ma- nuring. Advances are very seldom made, and the ryot sells his produce at the rate given in the preceding column.	Four annas per sa. maund of 40 pucca seers, the seer be- ing equal to 80 sicca rupees weight.
Behar - - -	Cotton imported from the North-west Provinces is sold at 11 rupees per maund.	The ryots sell their unclean cotton at four rupees per maund without advances. The indi- genous cotton is superior to that usually imported.	The common churka is used. The men who employ them- selves in cleaning cotton get three seers of paddy per diem, and clean about two seers of cotton in a day.
Bihar - - -	At Revelgunge the price of cotton averages from 9 to 10 rupees per maund.	They sell clean cotton at about 9½ rupees per maund, and the unclean cotton at 9 ru- pees per maund, without ad- vances.	The churka is generally used, and the expense of cleaning is about two pice per seer. The loss in cleaning is about five- sixths.
Bahabad - - -	The cleaned cotton sold in the marts is imported; it fetches about 10 rupees per maund; it is inferior to the indigenous cotton of the district.	The ryot sells his cotton at three rupees per maund in an unclean state, and without any advances.	The churka is used, and the expense of cleaning is four an- nas for 13 seers.
Bhumparun - - -	No cotton is cultivated in this district for sale.		
BHOORE:			
Bancoorah - - -	The first quality of cleaned cotton sells at an average of 10 rupees per maund of 80 sa. weight. There are several sorts of maunds in use.	The ryots do not cultivate cotton under advances; they sell their cotton in an unclean state at from Rs. 2. 8. to 3 ru- pees per maund.	The khawee is used for cleaning cotton, and the cost of cleaning varies from 6 to 12 annas, according to the size of the maund.
Bardwan - - -	The average price of clean cotton is 9 rupees and 8 annas per maund of 60 sa. weight.	The cultivation of cotton under advances is very rare. Cotton, with the seed in, is usually sold at the rate of 16 to 17 seers per rupee.	Twelve annas per maund.
Bhooghly - - -	The price of clean cotton is from 10 to 11 rupees per maund of 80 sa. weight.	The ryots sell their cotton in the unclean state at 2½ ru- pees per maund without ad- vances.	Cotton is cleaned with the churka, and costs 12 annas per maund.
Budda - - -	The price of clean cotton varies from 11 to 12 rupees per maund of 80 sa. weight.	The cotton grown is almost entirely used for home pur- poses. That sold in the marts is imported from other dis- tricts.	The churka is used to clean cotton.
Baraset, Jessore, 24 Pergunnahs, Soan- derbuns.	Cotton is not grown in these districts.		

calling for certain Information relative to the Cultivation, &c. of Cotton in India, &c.—continued.

4. What are the Expenses of conveying Cotton to the nearest Port for Shipment?	5. What is the average Produce of Cotton per Beegah or Acre?	6. What is the quantity of Land under cultivation with Cotton, and to what extent is it probable that the Cultivation could be carried in the event of an increased demand?	ABSTRACT of COMMISSIONER'S REMARKS.
River carriage from Patna to Calcutta is about $2\frac{1}{2}$ annas per sa. maund. Bullock carriage is about four annas per maund for 24 miles, and cart carriage three annas. Cotton is not exported from the Behar district. No cotton is exported. The cost of carriage would be about 10 annas per maund. The expense would be about Rs. 34. 12. per 100 maunds to Calcutta.	The average yield is about three maunds and eight seers per acre; hence the cultivation is but trifling. The average produce is about three maunds per beegah. Cotton is usually sown with some other crop, but the produce may be assumed at three to four maunds per beegah. Three maunds per beegah, or 4 maunds 32 seers per acre, one beegah and 12 cottahs being equal to an English acre.	About 1,250 acres, and it might perhaps be extended another 1,250 acres, but the soil is not generally favourable to the growth of cotton, and it requires very careful culture. About 7,000 beegahs are under cotton cultivation, but if advances were made, and the same facilities afforded as to opium cultivators, it might be extended to 12,000 beegahs. The quantity of land under cotton cultivation is not ascertainable. About 3,000 beegahs are at present under cotton cultivation, but under favourable circumstances the cultivation could be largely extended.	The Commissioner says that, generally speaking, the soil of the Patna division is not favourable to the growth of cotton, and that the supplies of the inhabitants are drawn principally from the North-west Provinces: but the cotton that is produced is considered superior to that imported, being finer and tougher in the thread. American seed has already been tried on a small scale, but without success; and from experience it is evident that the superiority of foreign sorts of cotton can only be kept up by annual importations of seed. The quantity of cotton imported into the Patna division from Mirzapore is about 50,000 maunds, which is principally the produce of Bundelkund.
No cotton is exported, but the expense of conveying cotton to Calcutta would be about eight annas per maund. According to the part of the district where the cotton may be grown. If far in the interior, about five annas per maund.	Two to $2\frac{1}{2}$ maunds of 60 sa. weight per beegah of 40 yards square. Three such beegahs are about equal to one English acre. About one maund and 13 seers per beegah,—1 rood 12 perches and 27 yards English.	There are about 18,000 beegahs under cotton cultivation, and it might be extended to 25,000 beegahs. Sixteen thousand beegahs, which could be doubled, were there sale for the produce.	The maund in this district varies from 60 sa. weight to 90 sa. weight. The Company's rupee is that in use. The cotton grown is of a very inferior description, hence the sale is very limited. Cotton is imported from Mirzapore.
From two to eight annas per maund, according to distance from the river. No cotton is exported from this district.	Two or two and a half maunds per beegah, or five or six maunds per acre. The average produce is about $7\frac{1}{2}$ maunds per acre, or three maunds per beegah.	The cultivation consists of about 9,000 beegahs, and might probably be doubled in the event of an increased demand. About 2,000 beegahs are under cotton cultivation, and in the event of an increased demand it might be extended to about 4,000 beegahs.	The beegah here referred to consists of 80 cubits square, the cubit being 20 inches. The Commissioner is of opinion that the estimate given of the existing cultivation of cotton in each district, and of the extent to which it could be increased, is much below the mark.

(continued)

ABSTRACT of the Replies of the Local Authorities to the Board's Circular of 21 February 1848,

DIVISIONS and DISTRICTS.	1. What is the Price of Cotton, freed from Seed, at the principal Mart or Marts in your District?	2. At what Price does the Ryot sell his Cotton, cleaned or uncleaned, and with or without Advances?	3. What is the Expense of cleaning Cotton by the Churka or Foot-roller, or by any other method which may be in use?
DACCA: Sylhet - - -	Cotton freed from the seed, sells in the Sylhet Bazar at at about <i>Rs.</i> 12. 8. cleaned, and 5 rupees uncleaned per maund of 80 lbs.	The ryots sell most of their cotton uncleaned, and do not receive advances.	The expense of cleaning by the churka is from <i>Rs.</i> 1. 8. to <i>Rs.</i> 2. 8. per maund of 80 lbs.
Backergunge - -	All the clean cotton sold in the principal marts of this district is imported principally from Mirzapore. The cotton grown in the district is sold in the bazars in an unclean state, and called "kupas." The price of the cleaned cotton which is imported into the district is 9 to 10 rupees per maund of 80 sa. weight.	All the cotton grown in the district is cultivated without advances. The ryots sell their cotton in the unclean state, at from <i>Rs.</i> 3 to <i>Rs.</i> 3. 8. per maund.	Women, who spin thread, separate the seeds from the small quantity of cotton they use by means of a roller. They seldom, if ever, clean a maund, but, taking the average, the expense of cleaning a maund by the roller would be about three rupees.
Cachar - - -	Cotton is not sold at any of the marts of this district freed from seed. The price of kupas in the cold weather at Oodarbund (inland) is three rupees per maund. At Lukypoor (on the river) 3½ rupees per maund, and at Sylchar (on the river) <i>Rs.</i> 3. 6. per maund. During the other months of the year it fetches two to three annas per maund more at each place.	The ryots sell no clean cotton in the district, but dispose of their kupas at their own houses, for about <i>Rs.</i> 2. 8., and often as low as <i>Rs.</i> 1. 8. per maund. They also sell it to merchants at Oodurpoor for about <i>Rs.</i> 2. 12., and at Lukypoor for about three rupees per maund. The ryots do not take any to Sylchar for sale.	The churka is commonly used, and the expense of cleaning one maund of kupas is from 10 to 12 annas. The maund of this district consists of 40 seers of 90 tolah weight. One maund of kupas will yield 37 lbs. of clean cotton.
Dacca - - -	The cotton produced in this district is invariably sold in its raw state, but clean cotton, which is imported from Mirzapore, sells at from 10 to 14 rupees per maund.	The ryots do not receive advances for cultivating cotton. They sell it in the unclean state at from <i>Rs.</i> 2. 8. to <i>Rs.</i> 3. 8. per maund of 40 seers, of 80 sa. weight.	There are two modes of cleaning cotton used in this district; one is by means of an iron katu (a kind of foot-roller) and the other by a churka, and the cost is about 10 annas the maund of unclean cotton, making the expense of obtaining a maund of clean cotton, <i>Rs.</i> 2. 8.
Furreedpore - -	A small quantity of cotton is grown in the district, principally for domestic use, and is called kupas; this is sometimes sold to the mahajuns, at the rate of four pice per seer of 60 tolahs. Cotton imported from the North-west Provinces is sold in the bazars at four annas per seer of 60 tolahs, and is called "toola."	There are no advances given for the culture of cotton. The ryot sells his cotton in an unclean state to the mahajun, at from three-fourths to one anna per seer; who retails it at an increased price of one quarter anna.	The cotton cleaned in the district is for domestic use, and the work is usually performed by the females of the ryot's family; when cleaned by hired labour the expense is from 1½ to two pice per seer of 60 tolahs.

calling for certain Information relative to the Cultivation, &c. of Cotton in India, &c.—*continued.*

4.	5.	6.	ABSTRACT of COMMISSIONER'S REMARKS.
What are the Expenses of conveying Cotton to the nearest Port for Shipment? The expense of conveying cotton to Calcutta would be about three annas and two pie per maund. The expense of conveying cotton to Calcutta, which is the nearest port, is about 20 rupees per 100 maunds. To send 500 maunds of cotton to Calcutta would cost about 80 rupees $2\frac{1}{2}$ annas per maund, but at Sealtek Ghat there is a duty of 10 annas and two pie upon every maund of cotton exported from the district, which would make the total cost of conveyance about $12\frac{1}{2}$ annas per maund. Calcutta is the nearest port of shipment, and the expense of conveying the cotton there may be estimated at from 12 to 13 rupees per 100 maunds. Cotton is not exported, but the transit expense would be moderate, owing to the facilities of water carriage throughout the district.	What is the average Produce of Cotton per Beegah or Acre? The average produce of a koolba (3 A. 2 R. 19 P. 28 yds.) is from 5 to 10 maunds, or 400 to 800 lbs. The average produce of cotton in this district is about 10 or 12 maunds per acre, and the expense of cultivation about 15 rupees per acre. The produce of cotton per keah or beegah is from $2\frac{1}{2}$ to three maunds, not less. The keah is equal to 1792 square yards; 12 keahs make one kulba. The produce of a beegah may be calculated at from $1\frac{1}{2}$ to two maunds. The beegah is equal to 4,800 square yards, the maund to 82$\frac{1}{2}$ lbs. From 10 to 20 seers of kupas, of 60 tolahs the seer, may be gathered from a pukhee of land (1,920 square yards), but the district is not considered favourable to the growth of it; the produce appears to be materially influenced by the dressing the land receives.	What is the quantity of Land under Cultivation with Cotton, and to what extent is it probable that the Cultivation could be carried in the event of an increased demand? Cotton is only cultivated in the hilly parts of Thannahs Latoo and Hingagee, in which about 300 koolbas are under cotton culture. The land of Sylhet is almost all too low and wet for cotton cultivation. Probably about 2,000 acres of land are now under cotton culture, and the cultivation is capable of being increased on demand to about 6,000 acres; but it is difficult to answer this question, as there has never been any regular survey of the district. The land under cultivation with cotton is at present about 225 kulbas, but in the ensuing season it will be probably double that quantity; an increased demand would not cause any very great increase in the cultivation. The above anticipated increase in the cultivation is owing to the settlement of some 2,000 Kookies in the district, which people all cultivate cotton. The cotton cultivation is so scattered in small patches, that it is impossible to estimate the quantity of land so employed, but the produce is insufficient for local purposes, and cotton is, therefore, imported from Mirzapore to make up the deficiency. There are large tracts of land at present lying waste in the district, which might be brought under cotton cultivation if a sufficiently remunerating price could be got for it. The cultivation of cotton in this district is almost exclusively limited to the domestic exigencies of the ryots. If it were remunerative, it would of course be extended, until it entirely superseded the north-west cotton in the local market.	The Commissioner observes, that from the local returns it would appear that the only two districts of the Dacca division in which cotton can be said to be grown for market are Cachur and Dacca. In the former the cultivation is at present confined to the slopes of the hills, but there appears no reason why the plant should not thrive on the plains, and he thinks, with encouragement, the district would produce much more and better cotton than it does at present. Mr. Dunbar adds, that he intends to furnish the Superintendent with a small quantity of cotton seeds, both foreign and indigenous, for distribution amongst the ryots. In the Dacca district, the Commissioner remarks that cotton is now much less extensively cultivated than formerly, and this circumstance would lead to the belief that proper encouragement alone is wanting to restore it. The cotton, too, which is grown in some parts of the district is, on the whole, a finer and more delicate product than any other cotton in the world, and from it are woven the muslins which for a long time seemed to defy competition, and which even now, perhaps, leave every other fabric behind in fineness and delicacy of texture. This, too, shows that the soil of the district is not unadapted for the growth of the plant, and gives ground for hope that in time the hardest sort of cottons, such as Patna, American, and Bourbon may be naturalised. Mr. Dunbar says, that looking to the above facts he is keen for continuing the experimental culture of cotton in the Dacca district, and he adds that the cotton, once successfully produced, there is no fear as to competition in respect to price, land, labour, and water carriage being abundant. He concludes by stating that he has directed the Government Cotton Superintendent, Mr. Price, in his proceedings, to bear in mind the excellent advice of Mr. Turner, the President of the Manchester Commercial Association, viz.: "In districts in which the American plant will not thrive, to encourage the growth of the best cotton that will grow."

ABSTRACT of the Replies of the Local Authorities to the Board's Circular of 21 February 1848,

DIVISIONS and DISTRICTS.	1. What is the Price of Cotton, freed from Seed, at the principal Mart or Marts in your District?	2. At what Price does the Ryot sell his Cotton, cleaned or uncleaned, and with or without Advances?	3. What is the Expense of cleaning Cotton by the Churka or Foot-roller, or by any other method which may be in use?
<i>Dacca—continued.</i>			
Mymensingh - -	Cleaned cotton, the produce of the district, is scarce, and of a very inferior quality; it is sold in the Mofussil bazars from Rs. 3. 6. to Rs. 5. 2. per maund. Cotton imported from other districts, freed from the seed, sells at the principal bazars from 8 rupees to Rs. 12. 4. per maund.	Cotton is not cultivated under advances in this district. The ryot sells his produce in the village bazars at from Rs. 3. 6. to Rs. 5. 2. per maund cleaned, and Rs. 2. 12. to Rs. 4. 8. per maund uncleaned; the maund consists of 40 seers of 60 tolaks.	The churka is not in use; cotton is cleaned by means of an iron hand roller, by which process the cleaning costs about 8 or 10 annas per maund, but the work is very imperfectly performed.
<i>BHAUGULPORE:</i>			
Tirhoot - - -	Ten rupees per maund of 80 siccas to the seer; 40 seers equal to one maund.	Three sorts of cotton are grown in the district, viz., Koktee and Bhoglah, which sell at an average of two rupees per maund uncleaned, and Bhoochurra, an inferior sort, of which 1½ maund is sold for two rupees; cotton does not appear to be cultivated under advances.	The cost of cleaning cotton is about 10 annas per maund of 80 siccas to the seer.
Monghyr - - -	Rs. 11. 12. per maund of 40 seers, the seer being 80 sa. weight.	The small quantity of cotton grown in the district is almost entirely consumed by the ryots for their own domestic purposes, the price cannot therefore be quoted.	The expense of cleaning cotton by the churka is about Rs. 2. 8. per maund.
Bhaugulpore - -	The only cotton to be found in the bazars of this district is imported from Mirzapore and other parts of the North-western Provinces, and is to be purchased at very low prices.	Cotton is not produced in this district except in very small quantities, for domestic use, by some of the ryots in the southern parts of it.	Not known - - -
Purneah - - -	The cotton to be purchased in the bazars of this district is imported from the North-western Provinces, and is sold at about 4½ annas per seer partially clean.	No cotton whatever is cultivated in this district.	Unknown - - -
Dinagapore - -	From 8 to 13 rupees per maund, according as it may be fresh picked and well cleaned, or otherwise.	Not sold by the ryots - -	The churka is not used; cotton is cleaned by the hand, but at what expense is not known.
Maldah - - -	Cotton imported from Mirzapore can be procured in the bazars of this district at from 8 to 13 rupees per maund, according to the size of the seer, which varies from 58 to 92 sa. weight.	The ryots of this district do not cultivate cotton.	Cotton is not cleaned in this district; it is imported clean.

calling for certain Information relative to the Cultivation, &c. of Cotton in India, &c.—*continued.*

4. What are the Expenses of conveying Cotton to the nearest Port for Shipment?	5. What is the average Produce of Cotton per Beegah or Acre?	6. What is the quantity of Land under Cultivation with Cotton, and to what extent is it probable that the Cultivation could be carried in the event of an increased demand?	ABSTRACT of COMMISSIONER'S REMARKS.
There is no exportation of cotton from this district, neither is there any likelihood of any.	Not ascertainable; the land upon which cotton is cultivated being small patches on the Sherepore and Soosung hills, which are temporarily brought under cultivation by the ryots, and are never measured.	There is nothing in the district which can properly be termed a cotton cultivation; the sort of vagrant cultivation which occurs varies from year to year, and it is impossible to say what quantity of land is under cotton cultivation; an increased demand for cotton would not be felt in the district.	
No satisfactory reply can be given to this question, as cotton does not appear to be exported from the district.	The average produce per beegah is about $2\frac{1}{2}$ maunds, the beegah being 4,225 square yards.	This district is not favourable to the cultivation of cotton, which does not probably exceed 5,000 beegahs.	The Commissioner observes that the districts comprising his division are not generally considered suitable to the growth of cotton, but that no information of much value can be obtained upon the subject; he thinks the adoption of cotton cultivation would be encouraged were Government to supply the landholders with the best foreign seeds gratis, for a year or two, and direct its officers to point out to them the great advantages likely to accrue from the extensive introduction of the plant.
The expense of conveying cotton from Monghyr to Calcutta averages about four annas per maund.	The average produce of the small quantity grown in the district is about $1\frac{3}{4}$ maund per beegah of 3,025 square yards.	Probably the cultivation of cotton somewhat exceeds 2,000 biggahs, and under a system of advances some increase would possibly take place, but opium cultivation is preferred by the ryots, and would interfere with any considerable extension of cotton cultivation.	
No cotton exported -	Unknown - - -	There may be said to be no cotton cultivation in this district, but there appears to be a fair quantity of soil adapted to the growth of the plant; it is, however, at present almost entirely absorbed by opium and indigo, which the ryots cultivate under advances, and would not willingly give up for any other crop.	
The cost of conveying cotton to Calcutta would be about two annas per maund, or 4 d. per cwt.	None grown - - -	No cotton whatever is cultivated in the district.	
Cotton could be sent to Calcutta at about four annas per maund.	Unknown - - -	Probably under 500 beegahs, the soil not being suited, and the crop an uncertain one and troublesome to look after; cotton could never be extensively grown in this district.	
Cotton is not exported from this district.	None grown - - -	Cotton is not cultivated in this district, and the soil is stated to be not adapted for its production.	

ABSTRACT of the Replies of the Local Authorities to the Board's Circular of 21 February 1848,

DIVISIONS and DISTRICTS:	1. What is the Price of Cotton, freed from Seed, at the principal Mart or Marts in your District?	2. At what Price does the Ryot sell his Cotton, cleaned or uncleaned, and with or without Advances?	3. What is the Expense of cleaning Cotton by the Churka or Foot-roller, or by any other method which may be in use?
CUTTACK:			
Balasore - - -	Cotton freed from seed is procurable in the different bazars of this district at from $3\frac{1}{2}$ to $2\frac{1}{2}$ seers per rupee, the seer being 80 tolahs.	The ryot generally sells his cotton uncleaned at the rate of from 28 to 16 seers per rupee, and without advances. In some pergunnahs it is said that if advances are made, cotton can be had about three or four seers cheaper.	The method in use in this district in cleaning cotton is by the churka, and the expense is 4 annas per seer.
Pooree - - -	The price of cotton freed from seed varies at the different marts of the district from five annas seven pie to 12 annas 9 pie per seer of 105 rupees weight.	The price of cleaned cotton, without advance, is $13\frac{1}{2}$ annas per seer, and, with advance, eight annas per seer. Uncleaned cotton is nine annas without advance, and $7\frac{1}{2}$ annas with advance.	Cotton is generally cleaned in this district by churka, at an expense of $2\frac{1}{2}$ annas per seer.
Cuttack - - -	The price of cotton freed from seed varies considerably throughout the district. The cost of a maund of 80 lbs. ranges from Rs. 10. 4. to 24 rupees. The general average amounts to Rs. 14. 3. 5.	The ryots always sell their cotton uncleaned, and without advances, and the prices they obtain range from two rupees to five rupees per maund, the average being Rs. 3. 6.	The instrument used for cleaning cotton is called a "khai," and consists of two wooden rollers, fixed in a common frame. It is worked by hand. The average cost of cleaning by this machine is Rs. 1. 2. 9. per maund.
Midnapore - -	Cotton is not cultivated in this district, except in small quantities for domestic use. It is imported from Calcutta and adjacent marts of Lower Bengal, and sells, according to distance from the river, at from Rs. 12. 5. to 13. 5. per maund for first quality, and Rs. 11. 7. to 12. 5. for second quality, free from seed.	The cultivation being merely for the domestic wants of the ryot, no extensive sales take place. When one ryot sells to another, which is very seldom, he gets from Rs. 2. 8. to three rupees per maund uncleaned, and with the seed in, and from 12 to 13 rupees for cleaned cotton. Under advances, the price would probably be one rupee per maund lower.	The expense of cleaning is 10 annas per maund, by a foot-roller, called a "khaoee."
CHITTAGONG:			
Chittagong - -	From Rs. $9\frac{1}{2}$ to 10 per maund of 80 tolahs.	It is grown only in the hill country, on the frontier. The ryots sell their produce uncleaned, at $2\frac{1}{2}$ rupees per maund.	Cotton is cleaned with the churka by women. One maund of clean cotton is produced from three maunds of unclean cotton. Three maunds unclean cotton cost about $7\frac{1}{2}$ rupees, and the one maund clean cotton sells for about $9\frac{1}{2}$ rupees, giving two rupees per maund profit.

calling for certain Information relative to the Cultivation, &c. of Cotton in India, &c.—*continued.*

4. What are the Expenses of conveying Cotton to the nearest Port for Shipment?	5. What is the average Produce of Cotton per Beegah or Acre?	6. What is the quantity of Land under Cultivation with Cotton, and to what extent is it probable that the Cultivation could be carried in the event of an increased demand?	ABSTRACT of COMMISSIONER'S REMARKS.
From two to 13 annas per maund, according to the distance of the place from which it has to be transported to the ports of Chooramun and Balasore.	The produce varies from one to three maunds on good land, and from 30 seers to one maund on inferior.	About 1,485 acres of land are under cotton cultivation, and it does not appear that the cultivation could be increased to any great extent, the staple produce of the district being paddy.	The Commissioner has not offered any remarks.
The expense of conveying cotton to Pooree for shipment is five annas per maund, exclusive of the hire of Massoolah boats.	Ten seers is the average produce per beegah. The seer in general use is 105 rupees weight, and 40 such seers make one maund. The beegah is equal to the English acre.	The quantity of land under cotton cultivation is about 10,390 beegahs, and the cultivation could probably, in the event of an increased demand, be extended about 500 beegahs further, but the soil is not generally suitable to the growth of cotton, and the heavy cost of land carriage would be a bar to its cultivation for export. At present the culture is restricted to local wants, and is not even sufficient for those.	
Cotton is not exported, the quantity produced not being sufficient for local consumption. The cost of transit to Calcutta would probably amount to one rupee per maund, or to Balasore six annas per maund. The cost of transit to the mouth of the Dhamrah river would be only about three annas per maund, but shipment from thence would be very difficult.	The produce per acre of 43,560 square feet varies from 30 seers to five maunds, the average being two maunds 16 seers.	There are at present only 10,100 acres of land under cotton cultivation, but were sufficient inducement offered, the cultivation could probably be increased one hundred fold. The cost of clean cotton is, however, now equal to 4½d. per pound in the district, and the additional charges of carriage to Calcutta, shipment to England, &c. would raise it above the selling price of the New Orleans cotton in England, and thus preclude any chance of competition.	The collector remarks that the American cotton would probably grow most luxuriantly in the district, for deputy collector Brijsoonder Roy has some thirty or forty cotton trees raised from Georgian or New Orleans seed, which he procured from Mr. R. Hunter, the collector, in 1832, and these trees, some of which are 15 years old and others six years old, produce three crops annually without cultivation, irrigation, or labour of any sort being bestowed upon them. Each crop, too, is equal to three or four ordinary crops of indigenous cotton, and the cotton itself beyond all comparison superior.
From two to four annas per maund, according to the distance of land carriage within the district.	Four maunds of uncleaned cotton per beegah. The beegah of this district is equal to 22,002 square feet. The maund is the bazar maund, equal to 83 lbs.	Probably 3,450 acres of land are now under cotton cultivation, but there are about 300,000 acres of land in the district capable of growing cotton, and it is believed that some of the Jungle lands of the western part of the district are also suitable to the plant, the soil being something similar to that of Bundelcund.	The collector remarks, that when there was a commercial resident at Radanagore, there was a considerable growth of cotton in the district to supply the demand for cloths, which were then exported from this country; and if there were a ready market for cotton, its cultivation would be extensively introduced, as the exportation would not be attended with much difficulty.
Cotton is conveyed to Calcutta for five annas per maund, and to Naraingunge, the great cotton mart in Dacca, for four annas per maund.	About 34 seers per beegah of 14,400 square feet, but it is grown in the hills only, and mixed with other things.	Unknown. It is now only grown in the hills, though formerly large quantities were grown on the plains. The crop grown on the hills is probably about 75,000 maunds of uncleaned cotton.	The Commissioner is of opinion that a very considerable rise in price and facility of sale would be requisite to increase the cultivation of cotton in his division. At present it is almost entirely confined to the hill tribes, and is cultivated by them only in a very desultory manner, mixed with rice, melons &c.

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CHITTAGONG—continued.			
Bullooah - -	Cotton is not sold in this district in the clean state.	Hardly any is raised. The ryot sells his produce uncleaned at 3 rupees. If he receives advances, at 2½ rupees per maund.	It is cleaned by the churka at 1 rupee per maund.
Tipperah - -	From 8 to 10 rupees per maund of 82 tolabs.	None grown for sale in the plains. The hill cotton sells at 1½ to 2½ rupees per maund in the uncleaned state.	It is cleaned with the churka by women; cost unknown.
CHOTA NAGPORE:			
Hazareebagh - - -	It is sold at the rate of 3 seers, of 80 tolabs weight each, per rupee.	The ryot sells his cotton uncleaned at the rate of 14 seers per rupee, without advances, which are not usual in this district.	One maund of clean cotton is usually produced from 4 maunds of raw cotton, and the expense of cleaning by the churka is about 12 annas per maund of clean cotton.
Lohardugga - -	It commonly sells in the bazar at 3½ seers (of 80 tolabs weight) per Co's rupee.	The ryots sell their clean cotton at 3 seers per rupee, and under advances at 3½ seers. The kupas, with the seed in it, is sold at 12 or 13 seers per rupee.	Cotton is cleaned by the churka at an expense of 3 pie per seer; and for spinning cotton the charge is 1 anna per seer.
Maunbhoom - - -	Uncleaned cotton generally sells at 16 seers per rupee; 40 seers of 80 sicca weight make 1 maund.	The ryots do not receive any advance from the cotton vendors, but they cultivate it at their own expense, and dispose of it in an unclean state at 16 seers per rupee.	The churka is used for cleaning, at a cost of 5 annas for each maund.
ASSAM:			
Gowalparah - - -	Principal mart is Gowalparah, and the selling price of clean cotton of all descriptions is from Rs. 8. 8. to 9 rupees per maund of 80 tolabs.	No advances are made to the Garrow cultivators of cotton, and they generally dispose of their cotton at the Garrow hauts in an uncleaned state, at from Rs. 2. to Rs. 2. 4. per maund. The clean cotton which they have for sale averages perhaps 1,000 maunds per annum, and realises from Rs. 4. 12. to 5 rupees at the hauts under the hills.	The churka is the only instrument used for cleaning cotton, and the expense is about 12 annas per maund. Garrow cotton contains equal portions of seed and cotton, while the Upper Assam cotton yields only 16 seers of cotton to 24 seers of seed.
Durrung - - -	There is no current rate for clean cotton, as it is invariably sold with the seeds in it.	In October and November the price of uncleaned cotton is about Rs. 3. 6. per maund; at other seasons it sometimes fetches as much as Rs. 4. 8. Under advances, while the crop is on the ground, it may be obtained for Rs. 2. 8. per maund of 80 tolabs.	A maund of cotton yields about 15 seers of clean cotton. The seed is extracted by an instrument called a "neothunnee," of very rude description, by which about 2 seers may be cleaned in one day, which makes the cost of cleaning amount to about Rs. 1. 4. per maund.

calling for certain Information relative to the Cultivation, &c. of Cotton in India, &c.—*continued.*

4. What are the Expenses of conveying Cotton to the nearest Port for Shipment?	5. What is the average Produce of Cotton per Beegah or Acre?	6. What is the quantity of Land under Cultivation with Cotton, and to what extent is it probable that the Cultivation could be carried in the event of an increased demand?	ABSTRACT of COMMISSIONER'S REMARKS.
From Noacolly to Calcutta the expense would be about 12 rupees per 100 maunds.	About 20 seers per Bengal beegah, as above.	There is very little cotton cultivated in the district, the land being for the most part low and salt.	
About 4 annas per maund.	Unknown; but believed to be but trifling.	Scarcely any cotton is grown in the plains. The cotton sold in the marts is almost entirely produced in the hills.	
The expense of conveying cotton to Calcutta would be about 19 rupees per hackery load of 11 maunds, to about Rs. 1. 11. 6. per maund.	The average produce is about 1 maund 33 seers per beegah; the beegah is a square of about 180 feet.	The extent of land in cotton cultivation is about 4,080 beegahs, but there is abundance of land in the district which could be brought under cotton cultivation were there an increased demand for the article.	The Commissioner says that the staple of the cotton produced in the three districts of his division is short, and the cotton itself by no means good. But in Sumbulpore, in the political agency, the indigenous cotton is remarkably fine, and the mode of cultivation pursued there is very good.
The cotton produced is consumed at home. If any were sent to Calcutta, it would cost about 1½ rupee per maund, sent on bullocks.	The average produce of cotton of a beegah is 10 seers. The beegah consists of 20 cottahs of 7½ feet square.	About 20,000 beegahs are in cotton cultivation. With an increased demand there is every probability that an increase of 30,000 beegahs of cotton cultivation might ensue.	The Commissioner adds, that he proposes to distribute some cotton seed, expected from Dr. Royle, to the Sumbulpore zemindars, and to send persons with the seed to see it sown on proper soil. The soil of Hazareebagh, Lohardugga and Maunbhoom is not, in the Commissioner's opinion, generally adapted for the growth of cotton.
Four annas and a half per maund.	Two maunds per beegah. The beegah is 120 feet square.	7,500 beegahs are at present under cotton cultivation, which could be increased to 100,000 beegahs, or even more.	
The cost of transit from Gowalparah to Calcutta is about four annas per maund in country boats.	About 3 to 3½ maunds per beegah, of 1,600 square yards, or 40 × 40 yards.	No means of ascertaining this, as the whole of the cotton sold at the hauts is the produce of the Garrow country; but it is certainly not less than 15,000 beegahs, producing 45,000 maunds, and the cultivation may be increased to any amount that the industry of the people will allow, and increased demand call for.	The Commissioner says that the cotton sold in Assam, which amounts to about 100,000 maunds, is principally the produce of the Garrow and Naga hills; but that there is a vast quantity of land, especially in Gowalparah, Nowgong, and Lukimpore, well adapted for cotton cultivation; and any circumstances which caused a very trifling rise in the price of the wool would, he imagines, be attended with a great increase in the cultivation of the plant. The assistant in charge of the Gowalparah district recommends a small experimental farm there, to be worked by convicts, but the Commissioner thinks that if any experiment is to be made, it would be better to make the trial at Mut-tuck, under the superintendence of the Chinese tea overseer, as it could be conducted by him more efficiently and cheaply than under a separate manager, and would by no means interfere
The cost of boat hire from Tezpore, the principal station, to Calcutta, is about 8 annas per maund.	One poorah, equal to 1·19146 English acres, will yield 6 to 7 maunds of cotton in a favourable season.	Cotton is produced in this district chiefly on the low hills or high forest land. About 800 or 900 poorahs are under cultivation; 400 or 500 maunds may annually be obtained, besides what is reserved for home use by the ryots, and if encouragement were afforded the cultivation would be greatly extended.	(continued)

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<i>Assam—continued.</i>			
Nowgong - -	The cotton is always sold by the growers and by the merchants in an unclean state.	The ryot sells his cotton un- cleaned at three rupees per maund; but if advances are made by the traders while the crop is growing, then it is valued at two rupees the maund.	Cotton is cleaned by a churka, and the cost of clean- ing is 10 seers of salt, equal to Rs. 1. 4. per maund.
Seeksagur - -	No cotton cleaned from seed is to be had in any mart of this district.	The cotton comes from the neighbouring Naga Hills, and is generally bartered, and the money value realised by the producer cannot be estimated.	The cleaning of cotton is generally an ordinary house- hold work, and the actual ex- pense cannot therefore be given.
Seeksagur, sub-divi- sion Golahghât.	The cotton procurable is all uncleaned, and costs on an average about Rs. 2. 8. per maund of 40 seers.	The Nagas and Meekirs bring the cotton to market them- selves, or dispose of it to petty traders in their own villages in barter for salt, dows, spears, beads, iron, tin, fish, &c., esti- mating one weight of salt as equal to two of cotton.	There is no trade carried on in clean cotton. Three seers of cotton are purchased for about four annas, and given to an Assamese woman, who cleans, spins, and makes it into a cloth, which is worth about one rupee, and she is paid from four to eight annas for her labour.
Lukimpore - -	Not procurable in a clean state.	Uncleaned cotton is sold at about Rs. 2. 8. per maund of 40 seers.	Not ascertainable, as all the cotton is exported unclean, and that used for home consump- tion is cleaned and prepared in the family.
Kamroop - -	Cotton freed from the seed is only occasionally procurable in the Gowahatty Bazar, and then at 10 to 12 rupees per maund. Uncleaned cotton fetches Rs. 3. 8. to 4 rupees per maund of 82 lbs.	The ryots sell their cotton under advances at Rs. 2. 8. per maund; without advances at 3 rupees to Rs. 3. 8.; but the plant is not much cultivated.	The instrument used is called a "nagata," and is similar to the churka of Bengal. The loss by cleaning is about 22 seers per maund, and the cost of the operation is about Rs. 1. 4. per maund. The work is usually performed by women, and generally for home con- sumption only.
Kamroop, sub-divi- sion Burpettah.	Cotton freed from the seed is but rarely procurable at Burpettah, and never but in small quantities; the price is about 10 rupees per maund. The unclean cotton sells at 3½ to 4 rupees per maund of 82 lbs. The cotton sold in the bazars is generally the product of the Garrow or Naga Hills.	The ryots usually only culti- vate for household consump- tion; but when they do sell cotton, the price is very little under the bazar rate.	Cotton is cleaned by the nagotah or churka. The wast- age is about 22 seers per maund, and the operation costs about 1½ rupee. The work is per- formed by women, who also weave it into cloth.

calling for certain Information relative to the Cultivation, &c. of Cotton in India, &c.—continued.

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The cost of conveying one maund of cotton from the Nuker Hills to Nowgong is about three annas; thence to Gowlpara about three annas more; and from Gowlpara to Calcutta, four annas.	One poorah of hill land planted in April and cut in September or October yields about 10 maunds of cotton.	The extent of land in cultivation has not been ascertained, as it is grown among the half civilised tribes only; but there is a vast quantity of land well adapted to the growth of the plant.	interfere with the tea plantations, but rather assist them, and cheapen all operations, as the coolies would then be retained in more permanent employment, and the fixed establishment would be available for overseeing and directing the cotton cultivation. The lands of Muttuck are, he says, high and well drained, but the climate is cool and wet, much, he imagines, resembling the climate of Coimbatore and Tinnivelly, which are so favourably noticed by Dr. Royle for the growth of American cotton; and he is persuaded that good cotton could be grown on them from the superior indigenous seeds and acclimatised American seeds; but that great care is requisite in supplying and forwarding the seeds.
Calcutta is the nearest port, and the expense of conveying cotton thither would not be less than 1 rupee to Rs. 1. 2. per maund.	Nearly all the cotton used in the district comes from the Naga Hills, and the produce is therefore unknown.	The cotton being produced in the Naga Hills the extent of cultivation is unknown; but it is believed that, with a good demand, the cultivation would be greatly increased.	
The expense of conveying cotton from Golahghat to Gowlpara is about eight annas per maund, and thence to Calcutta a similar sum.	It is not known what quantity of cotton the Nagas and Meekirs procure from a given quantity of land.	From 10,000 to 15,000 maunds are annually exported from Golahghat and Terphat; but it is not known what quantity could be produced in the event of an increased demand.	
From 12 annas to 1 rupee per maund.	The average produce is about 60 seers per beegah of 120 square feet.	Cotton is usually sown with the ouse paddy, and collected after the latter crop has been reaped. There are about 6,700 beegahs sown in this way, which produce about 10,000 maunds of uncleaned cotton, but the cultivation could be greatly extended.	
The expense of conveying cotton to Calcutta is about eight annas per maund.	The average produce is about three maunds of unclean, or 90 lbs. of clean cotton per acre.	About 1,200 acres are usually in cultivation in Kamroop, but the principal part of the cotton sold in the district is grown by the neighbouring hill tribes. There are about 60,000 acres of waste land in Kamroop fit for the production of cotton, but labour is too scarce to expect any increase in the cultivation.	
Cotton could be conveyed to Calcutta at about six annas per maund.	A poorah (equal to $1\frac{1}{3}$th English acre) produces about six maunds of unclean cotton, or 2 maunds 28 srs. of clean cotton, which is equal to 180 lbs. of clean cotton per acre.	About 450 acres are now in cultivation, but there are 25,000 acres of waste land fit for the growth of the plant. The cotton now cultivated is the common kupass, but the upland Georgia would probably grow well in many parts of the district.	

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ARRACAN:			
Aeng - - -	Clean cotton sells at the Sudder station at the rate of one rupee for two biswas = $3\frac{1}{2}$ lbs.; one biswa being equal to about $1\frac{1}{2}$ lb. avoidupois.	The cotton is raised by the Khungs in their joom or hill cultivations only, and is sold by them in the raw state at the rate of eight biswas per rupee. Advances are never made.	It is difficult to say what is the expense, but a woman will clean about one biswa in a day.
Ramree - - -	There is no mart in this district for cotton of home production, as the people are almost entirely supplied with the article from Burmah.	The ryot vends his cotton at about 11 seers per rupee uncleaned, but he generally produces it only for home consumption.	The churka is used, and one man will clean about three seers per day, which would make the expense of cleaning about 2 s. 8 d. per maund.
Arracan - - -	Cleaned cotton is unknown as an article of sale or commerce, whether in the interior or at the chief mart of the district.	The price at the different villages where the cotton is produced averages about two rupees per maund of 82 lbs., and it fetches at Akyab from 2 s. 8 d. to 3 s. 4 d. per maund. Advances are never made.	Cotton is never cleaned for sale, but it may be cleaned to order at $1\frac{1}{2}$ rupee per maund.
Sandoway - - -	Cotton freed from seed is not sold in the marts of this district. The seeded cotton fetches at Sandoway about about one rupee for $6\frac{1}{2}$ viss, = $23\frac{1}{2}$ lbs.	The ryot cultivates without advances, and sells his cotton in the raw state at the price noted in the foregoing column.	Cotton is cleaned by the churka at the rate of $1\frac{1}{2}$ rupee per maund of 80 lbs.
TENASSERIM:			
Amherst - - -	Twelve annas per viss in Maulmain, the viss being equal to one seer $2\frac{1}{2}$ chittaks, bazar weight.	Sales of clean cotton by the ryots are almost unknown; unclean the price is six rupees per 100 viss in the cotton villages. No advances are made to the ryot; 100 viss are equal to 4 maunds 17 seers and 12 chittaks, bazar weight.	Cotton is cleaned by the churka, and the expense is about eight annas per viss on the cleaned cotton. 100 viss of raw cotton yield about 30 viss of clean cotton.
Mergui - - -	Cleaned cotton is not procurable, but cotton with the seed in is sold at from 12 to 15 rupees per 100 viss, equal to 365 lbs. English.	Cotton is not grown in the district except by the wild Kurcus on the hill clearances.	Cotton is not cleaned for sale.
Tavoy - - -	The cotton in use is imported from Maulmain and Rangoon.	Cotton is not grown in this district.	Unknown - - - -

calling for certain Information relative to the Cultivation, &c. of Cotton in India, &c.—*continued.*

4. What are the Expenses of conveying Cotton to the nearest Port for Shipment?	5. What is the average produce of Cotton per Beegah or Acre?	6. What is the quantity of Land under Cultivation with Cotton, and to what extent is it probable that the Cultivation could be carried in the event of an increased demand?	ABSTRACT of COMMISSIONER'S REMARKS.
The question is not applicable to the Aeng district, so little cotton being grown. None has ever been shipped. For what cotton is produced in the district there is everywhere water carriage to Akyab, and the cost would not exceed four annas per maund. Cotton is usually only grown for home consumption, but it could be conveyed to Akyab in native boats at the rate of eight annas per maund. About 12 annas per 100 viss for conveying the cotton from the interior to Maulmain.	The produce of a doon of land is said to be about 250 biswas of unclean cotton. The doon is equal to 6½ acres. Each doon of plain cultivation is capable of yielding about 180 maunds. In the hills the yield is about 200 maunds per doon. Owing to the nature of the ground it is impossible to give even an approximation to the yield of cotton per beegah or acre. The average produce per doon, or 6½ acres, is 48 maunds. Ninety-seven viss per acre, or 4 maunds 12 seers 10 chittaks, bazar weight.	The cultivation only consists of 11 doons; and though the demand far exceeds the supply, the uncivilised cultivator is not stimulated thereby to increase it. The cultivation consists of about 13 doons of plain land and four doons of hill, and there is not much chance of its being extended. The cultivation of cotton is almost entirely confined to the wild hill men, and is exceedingly rude. An increased demand would not for years to come be likely to cause an increase of cultivation. The quantity of land under cultivation is about 380 acres, and it might be increased to 1,500 acres if there were demand. The cotton is of great fineness, white, and strong in the staple, but rather short. That grown on the alluvial plains far exceeds in fineness and length of staple that grown in the uplands. There are about 600 English statute acres of land under cotton cultivation, and though there are several thousands of acres fit for the growth of the plant, an increased demand would not be likely to increase the cultivation greatly.	The Commissioner has not offered any remarks. The Commissioner says that cotton is not grown in the Tenasserim Provinces except in the Amherst district, as the little produced by the Kurcus in their temporary clearances among the hills is not worth consideration, not alone from its insignificance, but in consequence of its inferiority. The trials of American seed made by Mr. Blundell seem not to have been very successful, but the Pernambuco, or true cotton, is said to thrive in particular localities.
Unknown - - -	Unknown - - -	There is, so to speak, no cotton cultivation in Mergui; what is not imported from Maulmain, &c., is grown by the wild Kurcus on their hill clearances, and is of a very inferior quality.	
Unknown - - -	Unknown - - -	Cotton is not grown in this district. An attempt was made in 1834-5 with Pernambuco seed, but it failed.	

(True copy.)

(signed) W. Seton Karr,

Under Secretary to the Government of Bengal.

(signed) G. Plowden,
Secretary.

I.
Bengal and
North Western
Provinces.

EXTRACT Agra Revenue Narrative (N. W. P.), dated 12 May (No. 2) 1847.

Revenue proceed-
ings, March 1846,
Nos. 8 and 9.
Revenue proceed-
ings, Nov. 1846,
Nos. 67 and 72.

47. IN these papers is contained the information desired by the Honourable Court in their despatch, No. 11, of 16th December 1845, respecting the causes which might have operated to render Bundelcund unproductive in an article which had been considered its staple.

48. A memorandum on the subject was obtained from Mr. H. Bell, which will also be found in the collection.

49. It will be seen that his Honour is disposed to concur in the latter's opinion, that the cultivation had not decreased, but that the increased consumption of cotton manufactures had taken off all that was before exported, and had kept pace with the increasing import. Every inquiry went to prove that the people were more numerous than they had been, and were much better clothed.

EXTRACT from the Proceedings of the Honourable the Lieutenant-Governor of the North Western Provinces in the Revenue Department, dated the 4th March 1846.

(No. 15.)

No. 8. From *W. Edwards*, Esq., Under Secretary to the Government of India with the Governor-General, to *J. Thornton*, Esq., Secretary to the Government, North Western Provinces, Agra.

Home Department.

Sir,
I AM directed to transmit, for the information of the Honourable the Lieutenant-Governor, copy of a despatch, No. 11, dated 16th December last, and received on the 9th inst., from the Honourable the Court of Directors, relative to the operations of the American cotton planters.

I have, &c.
(signed) *W. Edwards*,
Under Secretary to the Government of India
with the Governor-General.

Camp, Ferozepoor, 12 February 1846.

The following Letter is written to the Commissioner, Allahabad Division :—

(No. 904.)

No. 9. From *J. Thornton*, Esq., Secretary to Government, North Western Provinces, Agra, to *R. Lowther*, Esq., Commissioner, Allahabad Division.

Revenue
Department.

Sir,
I AM directed by the Honourable the Lieutenant-Governor to transmit to you the annexed extract (para. 5*) from a despatch from the Honourable the Court of Directors, No. 11, of the 16th December last, relative to the operations of the American cotton planters, and to request that you will favour the Government with your opinion on the subject mentioned by the Honourable Court.

I have, &c.
(signed) *J. Thornton*,
Secretary to Government, North Western Provinces.

Agra, 4 March 1846.

* Para. 5. "As the Revenue Commissioner of the Allahabad Division appears to have given great attention to the experimental operations conducted by the American planters, we should be happy to receive from Mr. Lowther any information which he may be able to collect from well informed persons, European as well as natives, respecting the causes which may have operated during the last 30 years to render Bundelcund unproductive in an article which, before that time, was considered to be its staple product."

EXTRACT from the Proceedings of the Honourable the Lieutenant-Governor of the North Western Provinces in the Revenue Department, dated the 7th November 1846.

(No. 8 of 1846.)

From *R. Lowther*, Esq., Commissioner, Allahabad Division, to *J. Thornton*, Esq., Secretary to Government, North Western Provinces, Agra.

No. 67.

Sir,

I HAVE the honour to acknowledge the receipt of your letter, dated the 4th March last, No. 904, with annexed extract (para. 5) from a despatch from the Honourable the Court of Directors, No. 11, dated the 16th December 1845, directing me to ascertain and report the causes which may have operated during the last 30 years to render Bundelcund unproductive with respect to the growth of cotton. Miscellaneous
Revenue.

2nd. I am not aware of the precise grounds on which this information is required, nor the circumstances under which a period of 30 years has been assumed as the data from which the province is supposed to have been less productive.

3rd. If the information required by the Honourable Court is connected with the failure of the late cotton experiment in Bundelcund, and an impression has been created that that failure is in any measure connected with the deterioration of the soil, I have no hesitation in affirming that such is not the fact. There are undoubtedly some localities better adapted to the cultivation of this staple as respects seasons than others, and it occurred to me that the mistake which the late Captain Bayles fell into, was that of selecting positions too near to the Jumna, where the seasons are said to be more precarious than in the more southern districts.

4th. Nothing could more satisfactorily establish the fertility of the soil under careful and scientific management than the result of the first season's operations; the cotton fields were the admiration of the people, who travelled from considerable distances to see them. The season was below an average, for in many parts, including the farm on the bank of the Jumna in the Cawnpore district, the fields of native cotton either partially or wholly failed, yet the adjoining American plant was not only very healthy, but produced an abundant crop. The succeeding seasons were still more adverse, the planters became dispirited, and in the absence of the stimulus imparted to them, through the energy of the late Captain Bayles, they became dissatisfied and disheartened, and requested they might be removed to a climate better suited to the experiment.

5th. I am informed by Mr. Bruce, who is an old resident of Bundelcund, and for many years attached to the commercial residency at Calpee, and extensively engaged in agricultural pursuits, that Bundelcund first became less productive in the growth of cotton on the discontinuance of the Company's trade in 1834, at which period a variety of other causes must have combined to affect the trade generally throughout the country; for independently of the falling off both in the demand and price from that cause, the growth and exportation of American cotton (so greatly superior to Indian produce) was on the increase; at this period too all the principal agency houses in Calcutta failed, many of whom exported largely to the China market; and the district of Bundelcund was visited by a serious famine, which was succeeded by another of greater calamity in 1837, which swept away both man and beast; added to this, about 15 years ago 588 estates in the Banda district, the revenue of which amounted to more than two-thirds of the revenue of the whole district, were thrown upon the hands of the tehseeldars, and held under Kham management for three years: it would be superfluous to descant upon the evils of this system; the measure, however, was forced upon Government, and there was no help for it at the time; most of the estates, partly through the previous neglect and mismanagement of the landholders, and partly through poverty, had become deteriorated from the increased growth of the deep-rooted jungle grass which had extensively spread over them; and there is little reason to doubt that during that period the cotton cultivation greatly diminished. Since that period cholera has committed its ravages and carried off vast numbers of cultivators; and although the survey returns prepared a few years ago exhibit a population of 149 to the square mile, there can be no doubt that that estimate at the present time is much beyond the mark.

6th. Mr. Wright, in his report on the Banda Settlement in 1843, notices a strange custom as prevalent in the district; he states that a cultivator has been held to cultivate, or at any rate to be responsible for the payment of the rent of a given area, whether cultivated or not; hence, if he has a certain quantity of good soil which he can efficiently manage and for which he pays an adequate rent, he cannot retain the good land and resign the bad which he is unable to cultivate; he must pay for both. Mr. Wright mentions having discouraged the system, and considers that it should not be countenanced otherwise than under written engagements; this is one of the consequences of an under-populated district.

7th. In my communication with the collector of Banda I am informed that cotton is still considered the staple of the district, and that the natives whom he has consulted on the subject, affirm that the area under cultivation is as extensive now as ever it was, but they allege that the produce of the plant is less than in former years, owing to the extremely slovenly system of cultivation which obtains in the district; here again is another proof of a

I.
Bengal and
North Western
Provinces.

limited population; the cultivators have more land allotted to them than they can efficiently manage, and that which is done is badly done. I believe the evil is not simply confined to a want of hands, but of cattle also; the seasons, moreover, for some years past have not been so propitious as formerly, and this has proved the great drawback.

8th. Mr. Bruce informs me that the cotton trade experienced a great check in 1819 from the heavy loss sustained by speculators in Great Britain, amounting, according to the best information, to nearly 3,000,000*l.* sterling. I do not think that the trade in Bundelcund was affected by that contingency; such is not admitted; the prices have fallen only of late years. I have obtained from the deputy collector of customs at Calpee a statement of the extreme prices of cotton in the bazar, and he informs me, on the authority of a cotton merchant, that once only, in 1820, were sales effected at so high a price as 27 rupees per maund; and from 13 rupees to 17 rupees per maund from 1816 to 1839. The table of prices as extracted from the merchants' books bears date from 1835 to 1846, a copy of which is annexed; and it will be seen that the depreciation commenced in 1843, from which period up to the present date the sales averaged as low as from 8 to 10 rupees per maund. I also annex a table showing the amount of duty collected at the Calpee Customs-house from 1835-36 to 1845-46. I also annex a statement exhibiting the amount of export and import duty collected at the old Cawnpore Custom-house from 1818-19 to 1830-31, which includes both the produce of the Doab and Bundelcund; by a comparison it would appear that of late years the trade in Bundelcund has greatly increased.

9th. It is clear, however, that India cannot compete with the American market, and it must be borne in mind that the increased importation of cotton cloths and twist has caused a considerable decrease in the consumption in this country, and particularly in Bengal, where its manufacture into fabrics of various descriptions has been almost entirely superseded by the imports from Great Britain.

10th. Formerly the export of Indian cotton manufactures to England, France and America, formed a valuable and important branch of the Calcutta trade, but this trade has almost entirely ceased, and vast quantities of cotton goods suited to the wants of the natives are now imported.

11th. Before the Company's trade was discontinued, it is estimated that British Bundelcund produced annually something more than a lac of bales of cotton, and about the same quantity was grown in the Jaloun and Jansi states. In former years the people had not only to contend against unfavourable seasons, but an oppressive assessment; from the evil effects of the latter system they are rapidly recovering, and the article is capable of being so cheaply produced in Bundelcund, that if a demand were created for it, there would be no difficulty in increasing the cultivation much beyond its former extent.

I have, &c.

(signed) R. Lowther, Commissioner.

Commissioner's Office, 4th Division, Allahabad,
12 September 1846.

STATEMENT showing the Amount of DUTY collected on COTTON at the Calpee Customs,
from 1835-36 to 1845-46.

SEASONS.	QUANTITY.			DUTY.		
	M.	s.	c.	Rs.	a.	p.
1835-36	261,189	33	4	108,624	7	8
1836-37	361,859	30	1	150,441	6	2
1837-38	385,009	22	11	160,353	7	6
1838-39	372,460	4	4	155,187	10	7
1839-40	319,830	37	8	133,262	14	4
1840-41	276,481	36	12	136,915	13	9
1841-42	273,303	2	4	136,662	6	5
1842-43	294,069	10	12	147,035	13	4
1843-44	319,045	12	6	164,723	15	8
1844-45	178,461	8	12	139,229	5	6
1845-46	348,886	29	8	174,443	6	1

Calpee Customs House,
21 May 1846.

(signed) G. Breton,
Deputy Collector.

(True copy.)

(signed) R. Lowther,
Commissioner.

STATEMENT of DUTY collected on Cotton at the *Cannore* Custom House,
from 1818-19 to 1830-31.

SEASONS.	IMPORT DUTY.		EXPORT DUTY.		TOTAL DUTY.	
	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.
1818-19	23,533	3 9	93,152	2 -	116,685	5 9
1819-20	17,510	11 3	61,586	11 9	79,097	7 -
1820-21	29,992	6 6	187,403	- 9	217,395	7 3
1821-22	26,844	3 3	127,146	9 9	153,990	13 -
1822-23	18,146	- 3	83,055	6 6	101,201	6 9
1823-24	12,603	- 9	106,199	2 -	118,802	2 9
1824-25	8,566	- -	61,307	4 7	69,873	4 7
1825-26	20,419	- 9	117,197	14 -	137,616	14 9
1826-27	7,213	- -	53,048	2 -	60,261	7 3
1827-28	4,706	- 6	53,183	15 3	57,889	15 9
1828-29	4,317	10 -	78,018	1 -	82,335	11 -
1829-30	84,058	3 6	32,105	15 3	116,164	2 9
1830-31	67,589	1 3	25,138	11 9	92,727	13 -

The records do not show what portion of the above was collected on cotton produced in the Doab. This is a point that should be ascertained before a correct conclusion can be arrived at.

Calpee Custom House, } (signed) *G. Breton*,
21 May 1846. } Deputy Collector.

(True copy.)

(signed) *R. Lowther*,
Commissioner.

STATEMENT of the extreme Prices of Cotton in the *Calpee* Bazar during
the following Years:

1835:	Rs.	a.	p.	Rs.	a.	p.	1837:	Rs.	a.	p.	Rs.	a.	p.
January	15	2	-	16	12	-	July	15	-	-	16	-	-
February	17	-	-	14	12	-	August	15	-	-	16	-	-
March	14	12	-	15	-	-	September	15	-	-	16	-	-
April	15	1	-	15	15	-	October	16	8	-	16	-	-
May	15	7	-	15	12	-	November	15	-	-	14	6	-
June	16	-	-	15	-	-	December	14	7	-	15	-	-
July	15	12	-	15	13	-							
August	15	8	-	15	-	-	1838:						
September	15	8	-	15	-	-	January	16	4	-	16	-	-
October	14	12	-	15	-	-	February	15	8	-	15	4	-
November	15	2	-	15	-	-	March	14	8	-	15	-	-
December	15	9	-	15	-	-	April	14	4	-	14	-	-
							May	13	12	-	13	8	-
1836:							June	13	-	-	13	-	-
January	15	2	-	14	14	-	July	12	12	-	12	-	-
February	14	10	-	14	2	-	August	13	4	-	13	-	-
March	14	4	-	13	10	-	September	14	8	-	14	-	-
April	13	10	-	13	-	-	October	14	8	-	16	-	-
May	14	-	-	13	-	-	November	15	-	-	14	12	-
June	14	-	-	13	-	-	December	16	8	-	15	13	-
July	14	-	-	13	-	-							
August	14	-	-	13	-	-	1839:						
September	11	14	-	11	5	-	January	15	12	-	15	-	-
October	12	8	-	12	8	-	February	15	4	-	15	-	-
November	12	12	-	13	-	-	March	15	2	-	15	14	-
December	13	-	-	14	-	-	April	16	-	-	16	-	-
							May	15	8	-	15	-	-
1837:							June	14	8	-	14	4	-
January	13	8	-	14	-	-	July	14	-	-	14	-	-
February	13	14	-	13	12	-	August	14	-	-	14	-	-
March	13	14	-	13	8	-	September	14	4	-	13	12	-
April	13	8	-	13	-	-	October	14	8	-	14	4	-
May	13	12	-	13	-	-	November	15	8	-	14	12	-
June	13	-	-	13	-	-	December	14	4	-	14	7	-

I.
Bengal and
North Western
Provinces.

STATEMENT of the extreme Prices of Cotton, &c.—continued.

1840:	Rs. a. p.	Rs. a. p.	1843:	Rs. a. p.	Rs. a. p.
January - - -	14 8 -	a' 13 8 -	March - - -	10 12 -	a' 10 1 -
February - - -	13 8 -	" 12 4 -	April - - -	10 1 -	" 9 10 -
March - - -	12 - -	" 11 4 -	May - - -	9 14 -	" 11 6 -
April - - -	11 4 -	" 13 - -	June - - -	- - -	" - - -
May - - -	11 11 -	" 11 2 -	July - - -	- - -	" - - -
June - - -	- - -	" - - -	August - - -	- - -	" - - -
July - - -	- - -	" - - -	September - - -	10 14 -	" 10 10 -
August - - -	14 4 -	" 13 12 -	October - - -	10 10 -	" 11 8 -
September - - -	14 11 -	" 13 13 -	November - - -	10 9 -	" 9 11 -
October - - -	15 4 -	" 15 10 -	December - - -	9 10 -	" 8 3 -
November - - -	15 11 -	" 15 2 -			
December - - -	15 2 -	" 15 7 -			
			1844:		
1841:			January - - -	8 7 -	" 7 15 6
January - - -	14 12 -	" 15 - -	February - - -	8 6 -	" 9 2 -
February - - -	15 - -	" 17 - -	March - - -	8 11 -	" 9 14 6
March - - -	16 14 -	" 16 6 -	April - - -	9 14 -	" 9 10 -
April - - -	16 14 -	" 15 - -	May - - -	9 12 -	" 10 4 -
May - - -	15 - -	" 14 4 -	June - - -	- - -	" - - -
June - - -	- - -	" - - -	July - - -	- - -	" - - -
July - - -	- - -	" - - -	August - - -	9 11 -	" 9 14 -
August - - -	- - -	" - - -	September - - -	9 6 -	" 9 8 -
September - - -	12 4 -	" 11 - -	October - - -	9 2 -	" 10 7 -
October - - -	11 - -	" 10 8 -	November - - -	10 10 -	" 12 8 -
November - - -	10 4 -	" 11 8 -	December - - -	10 10 -	" 11 14 -
December - - -	11 8 -	" 12 - -			
			1845:		
1842:			January - - -	10 8 -	" 10 11 -
January - - -	12 12 -	" 12 5 -	February - - -	10 4 -	" 9 7 -
February - - -	12 7 -	" 12 4 -	March - - -	9 12 -	" 9 4 -
March - - -	12 4 -	" 11 8 -	April - - -	10 1 -	" 10 6 -
April - - -	12 12 -	" 12 5 -	May - - -	10 1 -	" 10 9 -
May - - -	12 12 -	" 12 6 -	June - - -	- - -	" - - -
June - - -	- - -	" - - -	July - - -	- - -	" - - -
July - - -	- - -	" - - -	August - - -	9 12 -	" - - -
August - - -	- - -	" - - -	September - - -	9 13 -	" 10 5 -
September - - -	- - -	" - - -	October - - -	10 1 -	" 11 12 -
October - - -	12 12 -	" 13 - -	November - - -	11 14 -	" 9 10 -
November - - -	13 - -	" 11 6 -	December - - -	9 10 -	" 9 - -
December - - -	12 10 -	" 10 2 -			
			1846:		
1843:			January - - -	9 4 -	" 9 12 -
January - - -	10 - -	" 12 12 -	February - - -	9 9 -	" 9 14 -
February - - -	11 - -	" 9 7 -	March - - -	9 10 -	" 11 - -
			April - - -	11 2 -	" 10 4 -
			May - - -	9 14 -	" 9 7 -

Calpee Custom House,
21 May 1846.

(signed) G. Breton,
Deputy Collector of Customs.

(True copy.)

(signed) R. Lowther,
Commissioner.

COPY of a Minute by Mr. H. H. Bell, addressed to Mr. C. Allen on the subject.

COPY of Mr. Hamilton Bell's Minute about Cotton, addressed to Mr. Charles Allen.

THE main points of the despatch, of which you sent me a copy, are the assumed reduction of cotton cultivation in Bundelcund; the opinion of the Court of Directors on the operations that have been relinquished, and their solicitude for the successful issue of any desirable experiment for the improvement of the cotton of this country, so as to render it in quality and condition suited to the demand of the British manufactures.

The Lieutenant-governor, I see, suspects that the assumed diminution is not confined to Bundelcund, but general, and the necessary result of larger importation of British piece goods and cotton twist, simultaneously with the almost cessation of export demand of the raw material, and the extinction of the extensive export trade formerly existing in the cotton manufacture of this country. And he considers this must have led to depressed prices, and, as a natural result, to reduced cultivation.

I am by no means quite satisfied that the fact is as surmised. With respect to Bundelcund, your report on Humeerpoor assigns very sufficient reasons for impaired agriculture generally in that unhappy province; the victim of zealous official avidity, and of the perhaps

equally

equally afflicting visitations of drought in 1829, 1833, and 1837, a disastrous succession of calamities against which no agricultural population in India could possibly make head. You have well observed that Mr. Pidcock, whose reduction seems to have been just and liberal, undid his good work by his too rapidly progressing rising scale of land tax. The "*revocare gradum*," where once cultivation has been abandoned, is most arduous; the increase of taxation should be most gradual, and generally it should not be annual. A stop between each addition is desirable, and would be advantageous to all interested in the productive results of the cultivation. Your reductions show the still deteriorated condition of the zillah; and, as regards cotton, I have little doubt total produce is less there than it was 30 years ago, but I remark that the relation which this cultivation bears to the total of the khurreef crop is that generally assigned by the native cultivators as the usual proportion in the cotton districts. One-fourth of the khurreef is the full portion in cotton. Your tables exhibit rather more than 26 per cent., and Mr. Muir's tables give nearly the same result. This would justify my conjecture that it is not a declining cultivation, and this opinion leads me back for a good many years to support the impression I feel on this subject.

Cotton fabrics have immemorially formed the clothing of the people of India, and the production of the raw material must therefore have been regular and uniform, and its price exposed to few other fluctuations than might arise from failure of crops. It was a permanent cultivation, and must have paid the usual rate of profit, and probably no higher. I have not been able to get returns from merchants' books, on which I could depend, at any very early year in this century; but I perfectly remember, in conversation with a very respectable mahajan, who in his youth had traded largely in cotton to Lucknow, being told that from seven to nine rupees per maund were the usual prices, the first being considered cheap, and the latter dear. The rates of the present day are equal to this, and eight rupees per maund to the ryot, gives him under ordinary circumstances a fair profit, equal to the average on other crops, demanding similar labour and expense in the cultivation.

Up to the year 1802, the Bengal Presidency did not export cotton. In that, or 1803, I cannot speak with certainty, though I think 1802, the first shipment was made to the China market, and that trade rapidly increased; but it is manifest it had little effect on general prices; for in the Furuha Return, I gave to Mr. Thomason, which may be positively relied on as taken from the books of the dealings of a very respectable firm, eight and nine rupees are the prices and limits of fluctuations in 1807. The China trade, although in itself of importance to the commercial community of Calcutta, was of a steady and almost unvarying character, and too limited to exercise any material influence on the cotton market. Of late years the China market has been unfavourable, and the exports much lessened, and so far, *per se*, this implies a diminished demand on our production.

See annexed
statement.

The charter of 1793 obliged the Company to provide for the public 3,000 tons of shipping at a freight of 15*l.* per ton, subject to increase in time of war, in such proportion as the Company might be themselves required to pay; but in Calcutta 25*l.* per ton might at that time be considered the rate at which privilege freight was saleable; and certainly cotton shipments at such charge were out of the question. On the altered terms of the renewed charter in 1814, freight fell gradually, but very considerably, and the American war about that period led to shipments of cotton to England. These influenced the market prices of the cotton in a degree quite disproportionate to their extent relatively to the entire production of the article. I imagine the most active demand must have been in 1816 and 1817. It was from the first a succession of dashing speculative operations—a question of timeous arrival contingent on our relations with America. Cost of production did not enter into the question of the price that was paid, demand and immediate supply being the only elements of calculation. The duration of these hazardous operations was too short to have had much influence even indirectly on the extent of production, though the natives who did not comprehend the grounds of the speculation, persevered in maintaining the bazar prices after the exciting cause had ceased; but in my opinion this had scarcely any effect, for little of the enhanced rates reached the ryot, being absorbed by the village *hunneea*, the dealer with the ryot, the more considerable trader to whom he sells, and the buyers in the great marts in which the latter realises his return; but so long as the ryot's price exceeds eight rupees per maund, cotton was a preferential cultivation, and as yet, with the exception of one year, which I cannot from memory particularise, I do not think any lower rate has been established. With reference to export to Europe, the cessation of the trade has undoubtedly withdrawn a considerable temporary demand on this staple product.

The export of India cotton piece goods was formerly a very important branch of trade. As regards Europe this is now nearly extinct, and I imagine that to the eastward islands it must be very greatly diminished, having probably been replaced by British manufactures. In so far as raw material was used in their manufacture, such demand must have ceased, certainly, and this must have also dried up another considerable source of consumption.

The danger to which I should look with the greatest apprehension, and which really seems advancing with great strides, and would ere now have had very decisive effects had it not been met by counterbalancing circumstances which still exist, is the rapidly increasing import of English cotton manufactures. These have already almost extinguished the finer native cotton fabrics, and they seem fast encroaching on the far more important, those which form the clothing of the mass of the population; though I have ascertained that as yet the coarsest fabrics are beyond English competition. Curious to determine this, I sent to England various patterns of cotton cloths, with details of their lengths, breadths, and usual weight per piece, and requested estimates of the lowest prices at which perfectly similar

I.

Bengal and
North Western
Provinces.

could be wove, and the English imitation patterns sent out in consequence showed me that equally cheap clothing of similar substance and strength could not be obtained at the same price. But every day increases the manufacturing power of England, and this struggle is, perhaps, only deferred. I have not touched upon cotton yarn, as I think it possible this enables the natives still to maintain some finer fabrics which they must have otherwise relinquished; but here the native raw material is displaced by America, and it is a very serious encroachment. It is, I understand, used in the warp; the softer Indian hand-spun thread supplying the woof.

I support my opinion of undiminished cotton cultivation in our own districts on several grounds. It may be assumed as undeniable that in the North Western Provinces much more land is now under cultivation than was the case 30 years ago, and from all I can learn the usual proportion of one-fourth of the khurreef crop is still general. I imagine we may consider the population considerably increased in the last 30 years, and although the superior and middle classes are certainly much impoverished, I believe the condition of the mass of the population improved.

My personal not inattentive observation extending locally over the last twenty-three years supports this impression. The wages of labour have certainly increased, and many old Kisans, with whom I constantly converse when out in the districts, have lamented to me the degeneracy and profusion of the present times, remarking that in their younger days the lower classes were exclusively fed with the inferior descriptions of grain, whereas now barley and even wheat have become the common food of the hired labourer. The improvidence of the native character is opposed to accumulation for any other purpose than marriage or religious ceremonies, in the agricultural class. They spend what they earn, and I conceive it is not an unfair assumption that those who feed better will seek better clothing. If they can afford to spend more on their food, we might conjecture they would appropriate more for their clothing; but if we were to consider the same amount as previously disbursed for their apparel, this would establish a vastly enlarged demand, and a proportionate increase of consumption of the raw material of their manufacture. When I arrived in India in 1818, I was an extensive purchaser of piece goods for the Mediterranean market. Amongst other descriptions I may mention Allahabad sahris, which I notice as having the means of reference to their present price before me, for which I then paid 120s. per corye. The Calcutta price current now quotes these as from 42s. to 52s. It is manifest the same sum would buy double the quantity, for it should, perhaps, be noticed this is simply a plain white cloth unaffected by any change of fashion. I should, however, properly remark that the very coarse cloths, as guzzy, have not materially varied within my observation, and I have been rather a large buyer for indigo seed bags and other similar purposes, for a good many years. Although the steadiness of this article may partially arise from the absence of competition, an uniformity of cost can alone account for an unenlarged production, and consequent equality of price. We are also still very large importers of cotton, as the custom-house books can establish. The cottons to the south-west are superior to our produce, and sell for better prices; but this must be more than counterbalanced by charges of transport; and these importations, if they are undiminished, could establish an increased consumption, as our export trade has nearly ceased. I am inclined, therefore, to think that my impression of undiminished internal production is not a mistaken one; but I should fairly tell you it is an opinion formed on the grounds I have noticed, and my judgment is open to your reflection; and it is a point on which I am by no means competent.

All this is very plain sailing; but we now come to that which, after all, is the main question where much must be conjectural, and only determinable by experiment, always more or less changeable. Can India compete with America, at all events, to such an extent as to afford a suitable cotton for common purposes, if not rivalling the superior growths of that country, and in what mode can the quality and condition of the produce be so improved as to render our cottons fitted for consumption in English manufactures? This embraces two points, quality and cost of production.

I take it now as quite settled that our experiments must be with indigenous cotton. I will never believe that a soil which can yield a cotton suitable for spinning into thread for the muslins of Dacca, and cloths of Chundehree, is unfit for the production of the average quality of American cotton; and this is what we want, at all events, in the first instance. I hold it quite certain that the first step is to find some quality which although not desirable, is still serviceable, and that this should be the first great aim; and I am inclined to hope that we have this in the Bagcheenee cotton, if sufficient attention can be given to its improvement. I think it far inferior to the Beraree, but that is not the cotton to begin with, as its cultivation would with great difficulty be enforced. It requires much water; the cotton pods are small, though its bearing is most prolific, and it comes late to maturity, and consequently runs greater risk from frost. It then remains to be seen whether in the cost of production we cannot more than compete with any slave cultivating country.

A late Government notice in the Jamaica Journal, in amendment of certain previous regulations as regards Indian emigrants into the island, has these conditions imposed on their employers.

The effective labour is restricted to eight hours per day.

Medical attendance and medicines gratis to emigrant and all his family.

A suitable dwelling and a quarter of an acre of land for a garden.

Rations weekly to every male and female emigrant above the age of eight years, the estimated value of which is 3s. 4d. per week.

Wages in money, besides varying with sex and age, rendering the weekly charge collectively

tively for an effective labourer, *i. e.*, male above 12 years of age, 6 s. 10 d., or Rs. 3. 5.; for a boy of eight years and older, 5 s. 8 d. or Rs. 2. 12. Now here there is no medicine, no dwelling, no garden grounds, no restrictions to eight hours, 11 being a fair average; and we can procure the same class of individuals on their native, and therefore most congenial soil, at from seven annas to ten annas per week, all the year round; and I ask if Jamaica can pay this heavy charge in competition with her neighbouring slave cultivators, how can we fear that India should fail in the struggle with any slave country in the production of articles common to both, and when there seems no reason for believing that any such material difference of average fertility of the soil exists as can compensate for the higher wages of labour? I admit that, as regards Jamaica, the sugar duties were unaltered when the above notice was published. What the effect of the new law may be is perhaps doubtful.

I have been particularly struck with a remark of Sir R. Peel's, in the debate on the sugar duties, that the gradual removal of all protective duties will ultimately lead to a contest between free and slave labour, and I think with him, that eventually the former will carry the day. It would be singular enough if we should owe to the relinquishment of an injudicious system of taxation the extinction of the iniquitous trade in human flesh, and all its attendant horrors, which direct legislation vainly attempted to suppress. It is India that can make the great struggle with the hope of success. A country abounding in free agricultural population, and with the exception perhaps of soil, exuberant in the vigour of untried fertility, as productive as any country under the sun, formidable as the contest would be, it is here that the battle may be boldly fought; for if India has great disadvantages from the apathy, inertness, absence of enterprise, and, above all, want of capital amongst the native agriculturists, it is, on the other hand, of all countries in the world the best suited for the trial, from the abundance of the population, the low wages of labour, and, above all, the submissiveness of the native character. I have little faith generally in statistical tables, often prepared by persons who if of an unquestionable good faith, are utterly unqualified to judge of the accuracy or value of the data on which their statements are founded; but if we might rely on Ure's book, the Doab lands are at least as productive as many of the cotton growing States of America, and if so, the antagonistic principles of free and slave labour meet on equal terms, if we can but find a cotton suitable for the British manufacturer.

I am obliged to say that I do not think the system adopted by the Honourable Company in sending out the American planters under Captain Bayles, was that from which important results could be expected. In my opinion the plan I have hitherto recommended is that which will best answer.

My opinion has always been, that these experiments do not belong to Government, and as a general principle, such is still my view. Individual exertion excited by the prospect of personal advantage, is the only healthy promoter of improvements, but there may, of course, be exceptions to the rule, and the measure I advocate is, I think, one of them. I am entirely persuaded, unaided native means and exertions will do nothing. It must be European vigour, foresight, and enterprise, that shall produce the desired result, and this cannot be successfully exercised in this measure unless the character of landlord and purchaser be conjoined. It is needless to advert to the causes which render it unlikely that within any short period, individuals thus circumstanced will be met within these provinces, and to postpone arrangements till then would be an adjournment *sine die*, so that I see the intervention of Government is essential to the prosecution of the measure I advocate; and although I will not venture to assert we must succeed, I still think the prospect encouraging. If I could have secured sufficient seed, I could this year have had 30,000 beegas (Cuicha) under cultivation, chiefly certainly in villages, either my own or under my influence, but many of my neighbours were ready to oblige me by making the trial, for my long residence amongst them has been productive of confidence and goodwill. My present idea is that when once it is established that we can send suitable cotton for the home market from hence, we shall find plenty of support in Liverpool merchants for the establishment of a Joint Stock Company for the maintenance of a cultivation that will give us peculiarly desirable returns for the trade in British manufactures, limited solely to the ability of India to pay for them, and I should be glad to see the government withdraw the instant their fostering support can be dispensed with, which I conceive it would be the instant we can show that India can really provide the raw material of the most important manufacture the world has ever seen.

We must get a cotton that will do, if not precisely such as we desire.

We must not interfere with the mode of cultivation at first further than by advice, which, however, no native will confide in and follow, but let the people follow their own custom.

In every village it will be desirable to have a kayth (field) of seer cultivation, conducted on the principle it is desired to introduce, but, in the first instance, the native tools should be used, and no other variation than drilling instead of broadcast, or any other mode of giving the plants room and air. I should be inclined, in some instances, to use the plan I verbally noticed, of sowing in small clumps of two or three plants, with an interval of three feet between them, as tried at Omer Gurh. The plants are fine and bushy, and promise well. I notice this incidentally, but in fact we must leave to time and experience for progress in improvement generally, and we must not attempt too much at once. The cultivation should be frequently visited when in bearing, the finest plants selected, and the produce kept separate for seed for future sowing; and a perseverance in this system will, I am persuaded, lead to great improvement in the quality. It is not impossible that by dispersing the *Berareea* plant in the Bagcheenee kayths, some crops of them might be obtained, affording finer cotton

I.
Bengal and
North Western
Provinces.

than the Bagcheenee and large bolls, and coming more quickly to maturity than the Berareea, as well as requiring less water, which is very important if irrigation becomes necessary. No Dessee cotton should be permitted to be cultivated so long as the Bagcheenee seed could be provided. This, of course, is not to be the result of authoritative restriction, but conditional on the agreement to make engagements for cultivation in any village desirous of contracting, and will not be very difficult. In no other way will pure unmixed kupas be obtained. The common Dessee cotton must gradually be got rid of altogether, the carelessness and improvidence of the native character affording no security for their selection of the best seed; to teach them the importance of which will be one of the most difficult tasks. This cannot be better exemplified than in the very article I am noticing. Last year I had 800 beegas of Bagcheenee cotton in my villages, and when I found that Government were breaking up their establishment I gave this up to the ryots. They acknowledge that the produce exceeded the Dessee in quantity, that they sold it from one to two rupees per maund higher price, and yet they did not save an ounce of seed for this year's sowing. When abused for their stupidity, and want of reflection, the answer at once was, "How was I to feed my bullocks?" This is nonsense; for 20 seers would have sufficed for one individual's sowing, but it shows carelessness as well as poverty, and that alone they will do nothing.

Indigo is nearly an analogous case. From the remotest antiquity this dye has been prepared in India; but it is little more than 50 years since European attention was first turned to an article which by progressive steps has been carried to such perfection that it had become a Bengal monopoly, and remained so till extreme prices encouraged competition in other countries. With every example before them for many years, the natives, with some few exceptions in Bengal, did not follow that which was laid open to their view, and at this day amongst those in these provinces the manufacture retains its pristine inferiority. This is not quite a parallel case, certainly, as the improved manufacture necessitates a factory and considerable outlay; but it still supports my opinion of the vanity of expecting any advance from Indian intelligence and exertion.

The remarks in the despatch with reference to the conduct of past experiments, and especially as regards the cotton gins, seem to me perfectly just. That these machines did not succeed here was at once manifest, and had they not been worked by Americans, I should without hesitation have conjectured that they were mismanaged. Aware that in the Bombay Presidency they are in use in some instances, I wrote to a friend to procure me such accounts as I could rely on. A letter from a gentleman in charge of cotton gins at Broach remarks: "In reference to the inquiries about our saw-gins, I beg to state that those in use here are all large ones, none with less than 60 saws in them, and turned by bullock power (agricultural bullocks). Our cotton is not cut at all, and the proof is that in Liverpool it sells from one-quarter to one-half higher than the best Broach cotton, cleaned by the ordinary churka. There is no doubt of the saw-gins paying, provided the management is on ordinary common sense principles. Our 60 saw-gins clean off each per diem 1,970 lbs. of kupas, and the yield from this may be one-third, or 656½ lbs. This may be taken as the highest rate of yield, 33½ per cent.; 27 per cent. is the lowest I have met with here, and 28½ per cent. is the ordinary average. The number of bullocks for two gins is four pairs, and for a day's work we use six pairs, relieving two at the half day's work, but four pairs would be ample were not our gearing bad and heavy. A man to each pair of bullocks; one man or woman I employ to feed the gin; and a couple of children to supply kupas, and keep the flue clean in the cotton-room. Seeds, small ones, will occasionally get through the grates, but seldom, and this is easily prevented by altering the width of the grates."

I do not know that I need trouble you with further remarks; and you may consider much of what I have written superfluous, but I am sure you will attribute any prolixity to the real interest I take in a subject of such great national importance, and in which I shall gladly co-operate, hailing it as the first step in calling into activity the vast resources of this country, which have been too long allowed to remain dormant.

I should add, that I do not think the bazar prices, I mean of the great marts, will afford much assistance, but I will endeavour to obtain such as may be relied on for this place and Mirzapoor. The holidays have prevented me from seeing several of the great mahajuns, on whom I depend for correct information. They are generally so suspicious of motives that they reluctantly give trustworthy statements.

You will see, however, that the fluctuations have frequently been very great from very inadequate causes, and that they really afford no criterion of the rates paid to the producer, or of the extent of the production. Take indigo seed as an example. The ryot generally contracts at from 2½ rupees to 3½ rupees per maund about August and September. If you were to inquire the bazar rates,—Furruckabad, Cawnpore, and Mirzapoor are the great marts,—nothing is more likely than that they might open at five or six rupees, vary to 8 or 10 rupees, and often much higher, but this scarcely at all affects the ensuing year's rates, or the extent of land left for seed crops; and I think the same of cotton as regards the cultivation.

(signed) H. Hamilton Bell.

8 October 1846.

(True copy.)

(signed) C. Allen.

STATEMENT showing the Market Price of Cotton (current in the Shop of Jewahir Mull and Oomed Roy, Bunneas of Mouzah Furuha, Pergunnah Moostufabad, Zillah Mynpoory) during the following Years.

Christian Year.	Sumbat or Native Year.	Price per Maund during the Month of					Lowest Price.	Highest Price.
		Katick.	Aghun.	Poon.	Magh.	Phagoon.		
		<i>Rs. a.</i>	<i>Rs. a.</i>	<i>Rs. a.</i>	<i>Rs. a.</i>	<i>Rs. a.</i>	<i>Rs. a.</i>	<i>Rs. a.</i>
1807 -	1864 -	8 -	9 8	9 -	9 -	8 12	8 -	9 8
1808 -	1865 -	9 -	10 -	9 -	9 -	8 14	8 14	10 -
1809 -	1866 -	12 -	10 -	9 8	10 -	9 12	9 8	12 -
1810 -	1867 -	11 8	11 4	11 -	11 8	12 -	11 -	12 -
1811 -	1868 -	15 4	15 -	15 10	14 12	15 8	14 12	15 10
1812 -	1869 -	13 -	14 1	11 8	11 -	10 -	10 -	14 1
1813 -	1870 -	9 8	9 4	9 -	8 8	8 -	8 -	9 8
1814 -	1871 -	9 -	9 4	8 -	8 8	8 8	8 -	9 4
1815 -	1872 -	8 -	8 4	8 6	8 -	7 12	7 12	8 6
1816 -	1873 -	10 -	11 4	13 8	14 -	15 8	10 -	15 8
1817 -	1874 -	11 -	13 -	15 -	15 8	16 -	11 -	16 -
1818 -	1875 -	12 8	14 8	15 -	16 -	15 12	12 8	16 -
1819 -	1876 -	13 8	14 -	13 -	13 4	13 8	13 -	14 -
1820 -	1877 -	16 -	15 8	13 -	13 -	14 -	13 -	16 -
1821 -	1878 -	16 4	15 12	12 8	13 -	14 -	12 8	16 4
1822 -	1879 -	12 -	12 -	11 8	11 12	11 4	11 4	12 -
1823 -	1880 -	13 4	13 -	14 6	14 8	14 4	13 -	14 8
1824 -	1881 -	13 -	14 -	13 4	13 -	12 12	12 12	14 -
1825 -	1882 -	14 9	13 6	11 12	10 8	10 -	10 -	14 9
1826 -	1883 -	12 -	12 4	11 -	10 -	9 -	9 -	12 4
1827 -	1884 -	10 4	10 -	9 -	9 4	9 4	9 -	10 4
1828 -	1885 -	11 12	12 -	11 8	9 12	11 8	9 12	12 -
1829 -	1886 -	10 4	10 -	9 12	9 -	8 8	8 8	10 4
1830 -	1887 -	10 -	8 8	8 4	8 8	9 -	8 4	10 -

Remarks.—The Furuha cotton maund is 510 old Sicca rupees to the Punseree, and is consequently equal to 1m. 9s. 2c. Co.'s weight.

21st of Kowar, Sumbat 1903.

MINUTE by the Honourable the Lieutenant-Governor of the North Western Provinces.

MINUTE.

No. 72.

THESE papers have been shown to Mr. Bell, and his memorandum on the subject contains much interesting matter regarding the cultivation of cotton in this part of the country. I am disposed to concur in Mr. Bell's opinion, that the cultivation of cotton has not decreased, but that the increased consumption of cotton manufactures has taken off all that was before exported, and has kept pace with the increasing import. Every inquiry goes to prove that the people are more numerous than they were, and are much better clothed.

(signed) J. Thomason,
Lieutenant-Governor North Western Provinces.

Ordered, that the correspondence noted above be placed on record with the foregoing Minute.

Agra, 7 November 1846.

(signed) J. Thornton,
Secretary to Gov. North Western Provinces.

Ordered, that the subject of the above communication be reported in the narrative of the quarter for the information of the Honourable the Court of Directors.

I.

Bengal and
North Western
Provinces.

EXTRACT from Revenue Narrative, No. 3, dated 8 October 1853.

COTTON.

Extent of cotton
cultivation in the
North Western
Provinces.

Para. 16, Nar.
No. 3 of 1849.
Revenue proceed-
ings, May 1853,
No. 147 to 150.

Para. 59. The Government of Bombay having requested information as regards the extent of cotton cultivation in the North Western Provinces, the Lieutenant-governor in reply transmitted, for the purpose of being laid before the Right Honourable the Governor in Council, copies of documents on the subject, as noted in the margin.* His Honor remarked that the nature of the land revenue settlements in these provinces precluded the Government from exercising any direct influence as to the species of crop to be sown. The choice was entirely given up to the zemindars and the cultivators of the soil. The estimates now furnished of the extent of land under cotton cultivation at two periods within the last few years were made with considerable difficulty. Such estimates could not be regularly and periodically furnished.

EXTRACT from Revenue Narrative, No. 3, dated 10 October 1849.

COTTON.

Cost and extent
of cultivation of
cotton in India.

Para. 50, Narr.
No. 2 of 1848.
Revenue proceed-
ings, April 1849,
No. 245 to 308.

Para. 16. Conformably to orders, dated 12th February 1848, the Board submitted Reports received from the Commissioners, regarding the cost and extent of cultivation of cotton in India, as also a general statement prepared in their office, exhibiting the information supplied from all the districts on the subject. These returns were duly forwarded to the Secretary to the Government of India.

EXTRACT from the Proceedings of the Honourable the Lieutenant-Governor of the North Western Provinces, in the Revenue Department, dated 12 May 1843.

(No. 2003 of 1853.)

No. 147.

From *F. Hume*, Esq., Secretary to the Government of Bombay, to *W. Muir*, Esq., Secretary to the Government of the North Western Provinces, Agra; dated Bombay Castle, 5 April 1853.

Sir, (signed) *F. Hume*

Territorial depart-
ment revenue.

I HAVE been directed by the Right Honourable the Governor in Council to forward a copy of the papers, as per margin,† and to request that you will, with the permission of his Honor the Lieutenant-governor, favour this Government with the information therein referred to as regards the extent of cotton cultivation in the North Western Provinces.

2. A form of the return furnished by the collectors under this Presidency is appended.

I have, &c.

(signed) *F. Hume*,
Secretary to the Government.

* Statement showing the extent of land cultivated with cotton in the collectorates of the North Western Provinces, and its probable yield for the year. Extent of cotton cultivation in the several districts of the North Western Provinces. Letter from Secretary Sudder Board of Revenue, North Western Provinces, No. 92, dated 27th February 1849.

† From the Secretary of the Chamber of Commerce, No. 72, dated 25th October 1852. Reply to ditto, dated 10th November 1852, No. 7,294.

(No. 72 of 1852.)

From *J. Cannon*, Esq., Secretary to the Chamber of Commerce, to *A. Malet*, Esq.,
Chief Secretary to the Government of Bombay, dated Bombay, 25th October 1852.

Sir,

REFERRING to para. 3. of Mr. Secretary Goldsmid's letter to the Chamber of Commerce, No. 80 of 1851, and dated 4th January of that year, wherein a promise was held out that Government would endeavour to ensure the preparation of statements on a uniform system for every cotton growing district, showing the extent of land cultivated with indigenous and foreign seed cotton, the number of churkas and gins, and the prospects of the season, &c. &c., which statements Government was then pleased to say should be published in the Government Gazette, I am now directed by the Committee of the Chamber respectfully to request the renewed attention of the Right Honourable the Governor in Council to this subject. I am further desirous to point out the importance, in the execution of the above-mentioned design, of including all the native States which contribute to the supply of cotton exported from Bombay to that Government, and the public may be informed on a subject of such vast and equal interest to both,—the extent of cotton cultivation throughout the country.

Should there be no statistics already collected in the other Presidencies, and now available, the Committee of the Chamber suggests that those relating to this Presidency and foreign states adjacent should be made public. In the meantime the statistics of cotton growing in Berar and the Nizam's dominions generally are particularly desired.

I have, &c.

Bombay Chamber of Commerce,
25 October 1852. (signed) *John Cannon*, Secretary.

(No. 7294 of 1852.)

From *A. Malet*, Esq., Chief Secretary to Government of Bombay, to *J. Cannon*, Esq.,
Secretary to the Chamber of Commerce, Bombay.

Sir,

I HAVE been directed by the Right Honourable the Governor in Council to acknowledge the receipt of your letter (No. 72), dated the 25th ultimo, and to state for the information of the Chamber of Commerce, that the several collectors under this Presidency have been directed immediately to forward to Government the returns relative to the extent of cotton cultivation therein referred to for the current season.

Letters to the col-
lectors, dated
4 November 1852.

2. Government also hope to receive, at an early date, approximate returns from the political agents, Southern Mahratta country and Kolapoor; but the results of references already made lead his Lordship in Council to apprehend that the political officers in the northern parts of the Presidency will not be able to furnish any statements.

3. An application will be made to the Government of Madras and the Resident at the court of his Highness the Nizam, for information of the description obtained from the collectorates under this Presidency.

I have, &c.

Bombay Castle, 10 November 1852. (signed) *A. Malet*,
Chief Secretary of Government.

(True copies.)

(signed) *F. Hume*,
Secretary to the Government.

STATEMENT showing the Extent of Land cultivated with Indigenous and Exotic Cotton in the Collectorate, and its probable Yield in Candies of 784 lbs. for the Year.

Z I L L A.	Land Planted with Cotton.			Probable Produce in Candies of 784 lbs.		
	Acres or Beeghas Exotic.	Acres or Beeghas Indigenous.	TOTAL.	Exotic.	Indigenous.	TOTAL.
When Beeghas are entered, the number of square yards in each should be stated.						

I.
Bengal and
North Western
Provinces.

STATEMENT showing the Extent of Land cultivated with Cotton in the Collectorates of the North Western Provinces, and its probable Yield for the Year.

DIVISION.	ZILLAHS.	Land planted with Cotton.	Probable Produce per Acre, in Maunds, Seers, Chittaks.	
			Cleaned.	Uncleaned.
		Acres.	Mds. s. c.	Mds. s. c.
Delhie - - -	Bhutteeana - - -	—	—	—
	Panceput - - -	14,820	- - -	8 34 2
	Hissar - - -	9,271	- - -	5 35 3
	Delhie - - -	3,321	1 3 1	—
	Rohtuk - - -	14,552	2 32 0	—
	Goorgaon - - -	29,617	1 23 0	4 39 5
	TOTAL - - -	71,581	1 19 6	6 22 14
Meerut - - -	Dehra Dhoon - - -	16	—	—
	Seharunpoor - - -	30,637	- - -	5 35 10½
	Moozuffernugger - - -	15,601	- - -	5 4 1
	Meerut - - -	23,046	- - -	3 6 4
	Boolundshuhur - - -	14,505	2 33 0	—
	Allygurh - - -	69,050	1 4 2	3 13 7
	TOTAL - - -	1,52,855	1 38 9	4 14 13½
Kumaen - - -	Kumaon - - -	260	—	—
	Gurwal - - -	—	—	—
	TOTAL - - -	260	—	—
Rohilkund - - -	Bijnour - - -	19,039	2 1 0	—
	Moradabad - - -	50,000	2 16 0	—
	Budaon - - -	34,091	- - -	4 15 0
	Bareilly - - -	29,711	1 12 8	4 15 0
	Shahjehanpoor - - -	7,160	0 21 4	2 4 8
	TOTAL - - -	1,40,001	1 22 11	3 24 13
Agra - - -	Muttra - - -	1,03,042	2 8 0	—
	Agra - - -	87,000	1 15 0	—
	Furruckabad - - -	14,148	2 0 0	—
	Mynpoorie - - -	29,290	- - -	9 16 7
	Etawah - - -	42,676	1 1 2	3 2 14
	TOTAL - - -	2,83,156	1 26 3	6 9 11
Allahabad - - -	Cawnpoor - - -	1,01,111	2 0 0	6 0 0
	Futtenpoor - - -	29,745	- - -	3 11 0
	Humeerpoor - - -	66,841	0 33 9	—
	Banda - - -	1,02,852	1 1 3	—
	Allahabad - - -	27,689	1 25 9	—
	Calpee - - -	21,049	1 17 8	5 4 6
	TOTAL - - -	3,49,287	1 15 9	4 31 13
Benares - - -	Goruckpoor - - -	1,300	0 20 0	2 20 0
	Azimgurh - - -	307	—	—
	Jounpoor - - -	17,032	—	—
	Mirzapoor - - -	5,766	- - -	2 10 0
	Benares - - -	1,967	- - -	1 8 0
	Ghazepoor - - -	1,649	—	—
	TOTAL - - -	28,021	0 20 0	3 29 0
	Acres -	10,25,161	—	—

EXTENT of Cotton Cultivation in the several Districts of the North Western Provinces.

DIVISION.	DISTRICT.	ACRES.	DIVISION.	DISTRICT.	ACRES.
Delhie	Bhutteana -	—	Agra	Muttra -	1,03,990
	Paneeput -	25,319		Agra -	1,00,015
	Hissar -	8,334		Furruckabad -	29,412
	Delhie -	4,238		Mynpoorie -	26,608
	Rohtuk -	20,973		Etawah -	13,020
	Goorgaon -	29,492		TOTAL -	2,73,045
	TOTAL -	88,356			
Meerut	Dehra Dhoon -	16	Allahabad	Cawnpoor -	1,01,111
	Seharunpoor -	17,572		Futtehpoor -	39,379
	Moozuffernugger -	17,300		Humeerpoor -	78,524
	Meerut -	6,672		Banda -	2,30,557
	Boolundshuhur -	22,867		Allahabad -	77,459
	Allygurh -	85,624		TOTAL -	5,27,030
	TOTAL -	1,50,051			
Kumaon	Kumaon -	260	Benares	Goruckpoor -	4,158
	Gurwal -	—		Azimghur -	307
	TOTAL -	260		Jounpoor -	17,032
				Mirzapoor -	5,766
				Benares -	6,557
				Ghazeepoor -	8,135
				TOTAL -	41,955
Rohilkund	Bijnour -	18,570	Saugor	Saugor -	47,920
	Moradabad -	33,532		Jubulpoor -	26,473
	Budaon -	34,091		Hoshungabad -	50,915
	Bareilly -	29,711		Nursingpoor -	
	Shahjehanpoor -	17,661		TOTAL -	1,25,308
	TOTAL -	1,33,565			

The following letter is written to the Secretary to the Government of Bombay :

(No. 1798 of 1853.)

No. 150.

From *W. Muir*, Esq., Secretary to the Government of the North Western Provinces, Agra,
to *H. E. Goldsmid*, Esq., Secretary to the Government of Bombay.

Sir,

I AM directed to acknowledge the receipt of your letter, No. 2,003, dated the 5th ultimo, requesting information as regards the extent of cotton cultivation in the North Western Provinces, and in reply, to transmit to you, for the purpose of being laid before the Right Honourable the Governor in Council, the accompanying copies of documents on the subject as noted in the margin.*

Revenue Dept.

2. The Lieutenant-governor desires me, at the same time, to remark that the nature of the land revenue settlement in these provinces precludes the Government from exercising any direct influence as to the species of crop to be sown. The power of choosing what crops shall be sown is entirely given up to the zemindars and the cultivators of the soil.

3. The estimates now furnished of the extent of land under cotton cultivation, at two periods within the last few years, were made with considerable difficulty; such estimates cannot be regularly and periodically furnished.

I have, &c.

(signed) *W. Muir*,

Agra, 12 May 1853.

Secy. to the Govt. for the N. W. P.

* Statement showing the extent of land cultivated with cotton in the collectorates of the North Western Provinces, and its probable yield for the year. Extent of cotton cultivation in the several districts of the North Western Provinces. Letter from Secretary, Sudder Board of Revenue, No. 92, dated 27th February 1849.

I.
Bengal and
North Western
Provinces.

Revenue Department, 18 May (No. 3) 1847.

Our Governor of the Presidency of Fort William in Bengal.

(Circular.)

Cotton.

PARA. 1. WE desire that you will cause to be prepared, for transmission to us with the least possible delay, a statement of all the expenses that have been incurred under your Presidency for promoting the improvement of the cultivation of cotton since the arrival of the American planters, up to 30th April last showing also any sums that may have been received for sales of cotton or cotton seed produced on the Government farms, or from the use of machinery, or on any other account.

2. We desire that a similar statement may be transmitted to us annually at the close of the official year.

We are, &c.

(signed) *H. St. George Tucker,*
J. L. Lushington,
&c. &c.

London, 18 May 1847.

Home Department Revenue (No. 9) of 1848.

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

Rev. Cons. 17 July
1847, No. 5 to 7.
Rev. Cons. 13 May
1848, No. 5 to 7.

WE have received from the Government of Bengal the accompanying statement, showing the expenses incurred on account of the experimental cultivation of cotton under the American cotton planters, from the first arrival in Bengal to 30th April 1847, as called for by your Honourable Court in your Despatch to that Government, No. 3, of 1847, of the 18th May.

Rev. Cons. 31 July
1847, No. 1.
Rev. Cons. 21 Aug.

2. We have requested the Lieutenant-governor of the North Western Provinces to expedite the statement for those provinces, as required by your Honourable Court in your despatch to our address of the same number and date.

We have, &c.

(signed) *Dalhousie.*
T. H. Maddock.
F. Millett.
J. H. Littler.

Fort William, 13 May 1848.

(No. 339.)

From the Under Secretary to the Government of Bengal to the Under Secretary to the Government of India, Home Department; dated Fort William, 10 May 1848.

Revenue.

Sir,

I AM directed by the Right Honourable the Governor of Bengal to forward, for transmission to the Honourable Court of Directors, the accompanying copy of a letter, No. 221, from the officiating extra Assistant to the Accountant, Government of Bengal, dated the 27th ultimo, with enclosure, showing the cost of the experimental cotton cultivation introduced under this Government.

I have, &c.

(signed) *W. Seton Karr,*
Under Secy. to the Govt. of Bengal.

(No. 221.)

From *W. Maples, Esq.,* Officiating Extra Assistant Accountant to the Government of Bengal, to *F. J. Halliday, Esq.,* Secretary to the Government of Bengal.

Sir,

IN obedience to the orders of Government conveyed in Mr. Officiating Under Secretary Grey's letter to the address of the Accountant of the 12th July last, I have the honour to submit the statement as per margin.*

2. The

* Statement showing the receipts and disbursements on account of the experimental cotton cultivation, under American cotton planters, from their first arrival in Bengal to 30th April last.

2. The annual statements on account of the cotton cultivation in the Bengal Presidency will be submitted at the close of each official year as desired.

I.
Bengal and
North Western
Provinces.

I have, &c.
(signed *W. Maples*,
Officiating Extra Assist. Accountant,
Government of Bengal.

Fort William,
Accountant's Office, Revenue Department,
27 April 1848.

STATEMENT showing the RECEIPTS and DISBURSEMENTS on account of Experimental Cotton Cultivation under American Cotton Planters, from their first arrival in *Bengal* to 30 April 1847, required in Mr. Under Secretary *Grey's* letter of the 12th July 1847.

R E C E I P T S.

— None. —

DISBURSEMENTS.	Rs. a. p.	Rs. a. p.	Rs. a. p.
In 1843-44 :			
Salary of J. O. Price, Superintendent of the experimental cotton cultivation, from 26th August 1843 to February 1844, at 360 rupees - - - -	2,229 10 10		
Ditto - - ditto - - for March 1844 - - - -	450 - - -	2,679 10 10	
Travelling and dawk expenses to Dacca - - - -	- - -	414 4 -	3,093 14 10
In 1844-45 :			
Salary of J. O. Price from April 1844 to March and part of April 1845, at 450 rupees - - - -	- - -	5,650 - -	
Salary of F. J. Terry, cotton planter, from April 1844 to February 1845, at 250 rupees - - - -	2,750 - - -		
House-rent of F. J. Terry, cotton planter, from April 1844 to February 1845, at 30 rupees - - - -	330 - - -		
Travelling allowance of ditto - - - -	40 - - -		
Salary and house allowance of F. J. Terry, as cotton planter, from 1st March to 7th April 1845, at 280 rupees - - - -	345 5 4		
Tent and deputation allowance of ditto for 14 days of September 1844, at 5 rupees per day - - - -	70 - - -		
Ditto - for 15 days of October 1844, at ditto - - - -	75 - - -		
Ditto - for 10 days of November 1844, at ditto - - - -	50 - - -		
Ditto - for 18 days of February 1845, at ditto - - - -	90 - - -		
Paid to Messrs. J. Spence & Co. for the accommodation of Mr. F. J. Terry - - - -	87 2 4		
Paid to Mr. F. J. Terry on account of passage-money to New York, and expenses from thence to the city of Nantze in the State of Mississippi, United States, also travelling expenses from Rungpore to the Presidency - - - -	2,140 - - -		
Expenses incurred on account of farming implements purchased for the experimental cotton farm, Dacca, including transport charges - - - -	540 6 -	6,517 13 8	12,167 13 8
In 1845-46 :			
Salary of J. O. Price, Government cotton planter, from part of April 1845 to February 1846, at 450 rupees - - - -	4,700 - - -		
Contingencies under ditto from January 1845 to February 1846 - - - -	2,506 13 5	7,206 13 5	
Establishment under F. J. Terry, cotton planter, from 1st to 6th April 1845 - - - -	3 15 6		
Ditto - - ditto - for May 1845 - - - -	19 13 6		
Ditto - - ditto - from June to October 1845, at 20 rupees - - - -	100 - - -		
Ditto - - ditto - from November to March 1846, at 26 rupees - - - -	130 - - -		

I.
Bengal and
North Western
Provinces.

DISBURSEMENTS—continued.		Rs. a. p.	Rs. a. p.	Rs. a. p.
In 1845-46—continued				
House-rent from 1st to 6th April 1845, and from June to March 1846, at 30 rupees	- - -	306 - -		
Ditto - - ditto - - for May 1845	- - -	20 - -		
Contingencies	- - -	355 - -		
			934 13 -	
Amount value of double and single iron horse ploughs, including freight, &c.	- - -	- - -	1,128 9 5	
				9,270 3 5
In 1846-47:				
Salary of J. O. Price, Government cotton planter, from March 1846 to February 1847, at 450 rupees	- - -	- - -	5,400 - - -	
Establishment under ditto, from March 1846 to February 1847, at 42 rupees	- - -	504 - -		
Ground-rent	- - -	32 - -		
Cooley hire	- - -	942 5 6		
Charges for cattle-minder	- - -	29 - -		
Ditto for carpenters', &c. work	- - -	101 8 -		
Boat-hire	- - -	39 2 -		
Charges for keeping elephants	- - -	119 2 -		
Purchase of bags for keeping cotton	- - -	3 11 6		
Ditto of oil cakes	- - -	10 - -		
Ditto of arsenic for killing rats in the godown	- - -	1 - -		
Rent of lands occupied by the cotton farm	- - -	93 12 -		
Ground-rent of lands cultivated with cotton	- - -	23 7 2		
Purchase of stationery	- - -	4 - -		
Purchase of cotton seeds	- - -	14 8 -		
Advanced to individuals for cultivating cotton	- - -	222 8 -		
Ditto to Mr. Price on account of Ryutty cotton cultivation	- - -	307 11 11		
			2,447 12 1	
EXPORT WAREHOUSE:				
January 1847, charges on Dacca cotton	- - -	1 2 6		
February 1847 - ditto - ditto	- - -	4 12 -		
			5 14 6	
				*7,853 10 7
TOTAL		- - -	Co's. Rs.	32,385 10 6

* The difference of Rs. 331. 3. 1. between this result and that exhibited in the statement furnished under date the 20th July last, is owing to the latter having reference to expenditure incurred at Dacca only, and to immaturity in the state of the adjustments of this office at the time alluded to.

(Errors excepted.)

Fort William,
Accountant's Office, Revenue Department,
27 April 1848.

(signed) *W. Maples*,
Officiating Extra-Assistant Accountant,
Government of Bengal.

(True copies.)

(signed) *W. Seton Karr*,
Under Secy. to the Govt. of Bengal.

Government of Bengal, Revenue.—No. 16. of 1849.

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

In accordance with the instructions contained in your Honourable Court's revenue despatch, No. 3, of the 18th May 1847, I have the honour to transmit the annual statement of receipts and disbursements on account of the experimental cotton cultivation under American planters in Bengal for the year 1847-48.

Fort William, 4 June 1849.

I have, &c.
(signed) *J. H. Littler*.

21 July 1849.

(signed) *Frederick James Halliday*,
Secretary to the Government of India.

(No. 13.)

I.
Bengal and
North Western
Provinces.From *W. Maples*, Esq., Assistant Accountant, Government of Bengal, to *J. P. Grant*, Esq.,
Secretary to the Government of Bengal.

Sir,

WITH reference to the orders of Government as contained in the second paragraph of Mr. Officiating Under Secretary Grey's letter to the address of the Accountant, dated the 12th July 1847, I have the honour to submit the annual statement as per margin.*

I have, &c.
(signed) *W. Maples*,

Fort William, Accountant's Office,
Revenue Department, 25 May 1849.

Assistant Accountant, Government of Bengal.

STATEMENT, showing the RECEIPTS and DISBURSEMENTS on account of Experimental Cotton Cultivation under American Cotton Planters, in Bengal, for the Year 1847-48, required in Mr. Officiating Under Secretary Grey's Letter, No. 585, dated 12th July 1847.

RECEIPTS.				Rs. a. p.		
Sale proceeds of Tattees, &c. of the cotton field - - - - -				- 10 -		
DISBURSEMENTS.				Rs. a. p.	Rs. a. p.	Rs. a. p.
Salary of J. O. Price, Government cotton planter, from March 1847 to March 1848, at 450 per mensem - -				- - -	5,850 - -	
Expenses incurred in repairing a cart, iron wheel and pinion - - -				10 - -		
Contingencies for Neej cotton cultivation from March 1847 to February 1848 - - -				1,990 12 4		
Contingencies for Ryutee cotton cultivation from March to October 1847 - - -				496 11 11		
Rs. 2,487 8 3						
Deduct amount adjusted in 1847-48, but included in last year's disbursements - - -				307 11 11		
				2,179 12 4	2,189 12 4	
						8,039 12 4
Expenses incurred in packing a maund of cotton seeds sent from Cuttack to Chittagong - - -				- - -	- - -	4 11 10
Freight on four bags of cotton seeds imported from Madras - - -				- - -	- - -	20 - -
						Rs. 8,064 8 2

(Errors excepted.)

Fort William, Accountant's Office,
Revenue Department, 25 May 1849.

(signed) *W. Maples*,
Assistant Accountant, Government of Bengal.

No. 19 of 1850.—Government of Bengal, Revenue Department.

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

In continuation of my despatch in this department, No. 16, of the 4th June 1849, I have the honour to forward, for the information of your Honourable Court, the accompanying copy of a communication from the Assistant Accountant to Government, No. 34, dated the 15th instant, submitting the annual statement, showing the receipts and disbursements on account of the experimental cotton cultivation under American planters in Bengal for the official year 1848-49.

2. Your

* Annual Statement, showing the receipts and disbursements on account of the experimental cotton cultivation under American cotton planters, in Bengal, for the year 1847-48.

I.
Bengal and
North Western
Provinces.

2. Your Honourable Court will perceive that Mr. Maples, in his statement, shows no receipts for the year under report, but Mr. Mytton, in the statement for the Dacca farm, annexed to his letter, No. 296, of the 1st December last, addressed to the Sudder Board of Revenue, shows the return of the year's growth as marked at 800 lbs., which, with what remained in hand (3,840 lbs.) of the previous years might amount at the bazar rate of 2 annas per lb. to 580 rupees.

Fort William, 23 August 1850.

I have, &c.
(signed) *J. H. Littler.*

Revenue Pro-
ceedings.

(No. 34.)

From *W. Maples*, Esq., Assistant Accountant, Government of Bengal, to *J. P. Grant*, Esq., Secretary to the Government of Bengal.

Sir,

WITH reference to the orders of Government as contained in the second paragraph of Mr. Officiating Under Secretary Grey's letter to the address of the accountant, dated the 12th July 1847, I have the honour to submit the annual statement as per margin.*

Fort William, Accountant's Office,
Revenue Department, 15 August 1850.

I have, &c.
(signed) *W. Maples*, Assistant Accountant, Government of Bengal.

STATEMENT, showing the RECEIPTS and DISBURSEMENTS on account of Experimental Cotton Cultivation under American Cotton Planters, in Bengal, for the Year 1848-49, required in Mr. Officiating Under Secretary Grey's Letter, No. 535, dated 12th July 1847.

R E C E I P T S.

— None. —

DISBURSEMENTS.		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Salary of J. O. Price, Government cotton planter of Dacca, from April 1848 to March 1849, at 450 per mensem	- - - - -	5,400 - -			
Contingencies under ditto	- - - - -	247 13 4			
Contingencies under ditto, for Neej cotton cultivation from March 1848 to March 1849	- - - - -	1,429 11 -			
Ditto under ditto, for Ryotee ditto, from ditto to ditto	- - - - -	2,284 7 -			
		<u>Rs. 3,714 2 -</u>			
Deduct former years	- - - - -	517 15 4			
		<u>3,196 2 8</u>	8,844 - -		
Contingencies incurred in Chittagong	- - - - -		2 3 -		
Salary of J. H. Mather, civil engineer, superintending the Government cotton experiment from 21st October 1848 to March 1849, at 400 per mensem	- - - - -			8,846 3 -	
Amount advanced to ditto for the construction of cotton cleaning machines at the Iron Bridge-yard, at Allipore, as per Government orders, dated 16th December 1848	- - - - -		2,141 15 -		
			<u>4,000 - -</u>	6,141 15 -	
					<u>14,988 2 -</u>

(Errors excepted.)

Fort William, Accountant's Office,
Revenue Department, 15 August 1850.

(signed) *W. Maples*,
Assistant Accountant, Government of Bengal.

* Annual Statement, showing receipts and disbursements on account of the experimental cotton cultivation under American cotton planters, in Bengal, for the official year 1848-49.

Government of Bengal, Revenue.—No. 11, of 1851.

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

IN continuation of my despatch in this department, No. 19, of the 23d August 1850, I have the honour to forward, for the information of your Honourable Court, the accompanying copy of a communication from the Assistant Accountant to Government, No. 92, dated the 12th instant, submitting the annual statement, showing the receipts and disbursements on account of the experimental cotton cultivation under American planters in Bengal, for the official year 1849-50.

I.
Bengal and
North Western
Provinces.

Fort William, 18 July 1851.

I have, &c.
(signed) *J. H. Littler.*

(No. 92.)

From the Assistant Accountant to the Government of Bengal to *J. P. Grant, Esq.*,
Secretary to the Government of Bengal.

Sir,

WITH reference to the orders of Government, contained in the 2d paragraph of Mr. Officiating Under Secretary Grey's letter to the address of the Accountant, dated 12th July 1847, I have the honour to submit the statement as per margin.*

I have, &c.
(signed) *W. Maples,*
Assistant Accountant to the Government of Bengal.

Fort William,
Assist. Acct.'s Office, Revenue Department.
12 July 1851.

STATEMENT, showing the RECEIPTS and DISBURSEMENTS on account of Experimental Cotton Cultivation under American Cotton Planters in Bengal, for the Year 1849-1850, required in Mr. Officiating Under Secretary Grey's Letter, No. 535, dated 12th July 1847.

RECEIPTS.

— None. —

DISBURSEMENTS.

	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>
Salary of J. O. Price, Government cotton planter at Dacca, from April 1849 to March 1850, at 450 rupees - - - - -	5,400 - -		
Contingencies under ditto for Neej cotton cultivation, from April 1849 to January 1850 - - - - -	993 6 3		
Ditto under ditto for Ryotee ditto, from April to July, and September 1849 to January 1850 - - - - -	427 15 1		
	<i>Rs. 1,421 5 4</i>		
Deduct former years - - - - -	247 13 4		
	1,173 8 -		
Value of a cotton saw-gin issued from the Arsenal in December 1849 to the Commissioner of Dacca, for the Government cotton farm at that place †.		6,573 8 -	
Salary of J. H. Mathur, civil engineer, superintending the Government cotton experiments, from April 1849 to March 1850, at 400 rupees - - - - -	4,800 - -		
Amount advanced to ditto for the construction of cotton cleaning machines at the Iron Bridge-yard at Allipore, as per Mr. Under Secretary Grey's letter, dated 11th August 1849, in the Home Department - - - - -	2,000 - -		
		6,800 - -	
			13,373 8 -

(Errors excepted.)

Fort William,
Accountant's Office, Revenue Department,
12 July 1851.

(signed) *W. Maples,*
Assistant Accountant, Government of Bengal.

* Annual statement, showing receipts and disbursements on account of the experimental cotton cultivation under American cotton planters in Bengal, for the official year 1849-1850.

† Value not known; vide accompanying copy of a letter from the Officiating Secretary to the Military Board, No. 2,333, dated 3d July 1851.

I.
Bengal and
North Western
Provinces.

(Copy.)

(No. 2,333.)

From Lieut. *J. P. Beadle*, Officiating Secretary, to the Assistant Accountant, Government of Bengal.

Sir,

Ordnance Dept.

IN reply to your letter, No. 39, of the 25th ultimo, I am directed by the Military Board to inform you that the value of the cotton saw-gin in question is not known in this department, as advised in letters to the Accountant, Military Department, Nos. 4,081 and 4,110, of the 16th November 1850.

I have, &c.

(signed) *J. P. Beadle*,
Officiating Secretary.

Fort William,
Military Board Office,
3 July 1851.

(True copy.)

(signed) *W. Maples*,
Assist. Acct. Govt. of Bengal.

Government of Bengal, Revenue.—No. 16 of 1852.

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

I HAVE the honour, in continuation of the despatch in this department, No. 11, of the 18th July 1851, to forward, for the information of your Honourable Court, the accompanying copy of a communication from the Assistant Accountant to Government, No. 94, dated the 3d instant, submitting the annual statement, showing the receipts and disbursements on account of the experimental cotton cultivation under American planters in Bengal, for the official year 1850-51.

2. The transmission of these statements will now cease, as your Honourable Court will have learned from the Revenue despatch from the Government of India, in the Home Department, No. 13, dated the 27th ultimo, that the experimental cotton cultivation in Assam has been abandoned, and the services of Mr. Price, the superintendent, dispensed with.

I have, &c.

(signed) *Dalhousie*.

Fort William,
25 September 1852.

Revenue Pro-
ceedings.

(No. 94.)

From the Assistant Accountant, Government of Bengal, to *C. Beadon*, Esq., Secretary to the Government of Bengal.

Sir,

WITH reference to the orders of Government contained in the 2d paragraph of Mr. Officiating Under Secretary Grey's letter to the address of the Accountant, dated the 12th July 1847, I have the honour to submit the statement as per margin.*

I have, &c.

(signed) *W. Maples*,
Assist. Acct. Govt. of Bengal.

Fort William,
Accountant's Office, Revenue Department,
13 September 1852.

* Annual statement, showing receipts and disbursements on account of experimental cotton cultivation under American cotton planters in Bengal, for the official year 1850-51.

STATEMENT, showing the RECEIPTS and DISBURSEMENTS on account of Experimental Cotton Cultivation under American Cotton Planters in Bengal, for the Year 1850-51, required in Mr. Officiating Under Secretary Grey's Letter, No. 535, dated 12th July 1847.

I.
Bengal and
North Western
Provinces.

R E C E I P T S.				Rs. a. p.	Rs. a. p.	Rs. a. p.
Refunded charges - - - - -	-	-	-	54	10	-
Sale proceeds of nine bullocks - - - - -	-	-	-	55	-	-
Ditto - ditto of small bungalow - - - - -	-	-	-	20	-	-
Ditto - ditto of small pony - - - - -	-	-	-	12	-	-
Ditto - ditto of cotton - - - - -	-	-	-	186	14	9
					-	-
						328 8 9
D I S B U R S E M E N T S.						
Salary of J. O. Price, Government cotton planter at Dacca, for April and May 1850, at 450 rupees -	900	-	-			
Contingencies under ditto - - - - -	16	9	-			
					916 9 -	
Salary of J. O. Price, Government cotton planter at Luckimpore, from June 1850 to January 1851, at 450 rupees -	3,600	-	-			
Amount advanced to ditto - ditto, on 6th December 1850 - - - - - Rs. 75 - - -						
Amount advanced to ditto - ditto, on 18th December 1850 - - - - - 200 - - -						
Amount advanced to ditto - ditto, on 14th February 1851 - - - - - 150 - - -						
Amount advanced to ditto - ditto, on 30th April 1851 - - - - - 100 - - -						
				525	-	-
					4,125	- - -
Salary of J. H. Mather, civil engineer, superintending Government cotton experiments, for April 1850 -	-	-	-		400	- - -
						5,441 9 -
				Excess of Charges - Rs.	5,113	- 3

(Errors excepted.)

(signed) W. Maples,

Assistant Accountant, Government of Bengal.

Fort William,
Accountant's Office, Revenue Department,
13 September 1852.

Government of Bengal, Revenue.—No. 15 of 1853.

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

I HAVE the honour, in continuation of the despatch in this department, No. 16, of the 25th September 1852, to forward, for the information of your Honourable Court, the accompanying copy of a communication from the Assistant Accountant to Government, No. 161, dated the 24th ultimo, submitting the annual statement of receipts and disbursements on account of the experimental cotton cultivation under American planters in Bengal, for the official year 1851-52.

I have, &c.

Fort William, 3 September 1853.

(signed) Dalhousie.

(No. 161.)

From the Assistant Accountant, Government of Bengal, to C. Beadon, Esq., Secretary to the Government of Bengal.

Sir,

WITH reference to the orders of Government contained in the 2d paragraph of Mr. Officiating Under Secretary Grey's letter to the address of the Accountant, dated the 12th July 1847, I have the honour to submit the statement as per margin.*

I have, &c.

(signed) W. Maples,

Assist. Acct. Govt. of Bengal.

Fort William,
Accountant's Office, Revenue Department,
24 August 1853.

* Statement showing the receipts and disbursements on account of experimental cotton cultivation under American cotton planters in Bengal, for the year 1851-52.

I.
Bengal and
North Western
Provinces.

STATEMENT showing the RECEIPTS and DISBURSEMENTS on account of Experimental Cotton Cultivation under American Cotton Planters in Bengal, for the Year 1851-52, required in Mr. Officiating Under Secretary *Grey's* Letter, No. 535, dated 12th July 1847.

R E C E I P T S.

— None. —

DISBURSEMENTS.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Salary of J. O. Price, Superintendent, Government cotton cultivation at Luckimpore, from February to October 1851, at 450 rupees per mensem - -	4,050 - -		
Ditto of an assistant under ditto - ditto, from 21st January to 31st May 1851, at 50 rupees per mensem	216 10 8		
Ditto of a Burkundauze, from 1st July to 31st December 1850, at 5 rupees per mensem - - -	30 - -		
Boat-hire for bringing farming implements and cotton seeds from Dacca to (Debroghur) Luckimpore -	156 - -		
Expenses incurred on account of a shed to store cotton, &c. - - - - -	11 8 -		
Expenses incurred in bringing J. H. Mather's cleaning machine from Gowhatty to Luckimpore - - -	3 - -		
Bamboos for making machans for cotton - - -	1 - -		
Petty contingencies - - - - -	- 8 -		
Cloth for bags - - - - -	1 - -		
Cart-hire, &c., for conveyance of cotton seeds from Cura Gola Ghat to Punkabarry - - - - -	- - -	4,469 10 8	
		43 12 -	
		Co's. Rs.	4,513 6 8

(Errors excepted.)

Fort William,
Accountant's Office, Revenue Department,
24 August 1853.

(signed) *W. Maples*,
Assistant Accountant, Government of Bengal.

Home Department, Revenue.—No. 14 of 1848.

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

With reference to Para. 2 of our despatch, No. 9, dated the 13th May last, we have now the honour to transmit the accompanying statement, showing the expenses incurred on account of the experimental cultivation of cotton in the North Western Provinces.

We have, &c.
(signed) *Dalhousie*.
F. Millett.
J. H. Littler.

Fort William, 15 July 1848.

(No. 3,447 of 1848.)

From *C. Allen*, Esq., Officiating Secretary to Government, North Western Provinces, to *G. A. Bushby*, Esq., Secretary to the Government of India, Home Department, Fort William.

Sir,

Revenue Department.

In continuation of my letter, No. 3,402, to your address, dated the 21st instant, I am directed by the Honourable the Lieutenant-governor to transmit to you, for the purpose of being laid before the Right Honourable the Governor-General of India in Council, the accompanying copy of a letter No. 1,073, from the Assistant Accountant, North Western Provinces, dated the 15th instant, submitting statement of expenses incurred on account of the cultivation of cotton in the North Western Provinces.

Agra, 24 June 1848.

I have, &c.
(signed) *C. Allen*,
Officg. Sec. to Govt. N. W. P.

(No. 1, in No. 3,447 of 1848.) (No. 1,073, 1840 to 1846-7.)

From *A. Shakespear*, Esquire, Assistant Accountant, North Western Provinces, to *C. Allen*, Esquire, Officiating Secretary to Government of the North Western Provinces, in the Revenue Department.

Sir,

WITH reference to my letter, No. 939, of the 12th instant, I have the honour to submit the statement of cotton charges therein promised.

Accountant's Office, Agra,
15 June 1848.

I have, &c.
(signed) *A. Shakespear*,
Asst. Acct., N. W. P., in Charge.

(True copy.)

(signed) *C. Allen*,
Offg. Sec. to Govt., N. W. P.

I.
Bengal and
North Western
Provinces.

(No. 2, in No. 3,447 of 1848.)

STATEMENT of Charges on account of the Experimental Cotton Cultivation, as entered on the General Books of the North Western Provinces, from the 1st of May 1842 to the 30th of April 1847.

General Journal for 1842-43, pages 150. 188, and 608 to 612.

Charges prior to the 1st of April 1842, viz. :	Rs. a. p.	Rs. a. p.	Rs. a. p.
Tentage and travelling charges of planters - - - - -	758 1 10		
Purchase of six hand gins - - - - -	2,850 - -		
Wages of labourers, feed of cattle, &c. - - - - -	533 14 - $\frac{1}{2}$		
		4,141 15 10 $\frac{1}{2}$	
Charges incurred from 1st April 1842 to 31st March 1843, viz. :			
Salary of Captain Bayles, superintendent of cotton plantations, from 1st of April to 21st June 1842, at 800 rupees - - - - -	Rs. a. p. 2,160 - -		
Deduct military pay at Rs. 121. 12. - - - - -	328 11 7		
	1,831 4 5		
Salary, tentage, and horse allowance of Messrs. Terry, Blount and Finnie, cotton planters, from 1st April 1842 to 31st March 1843, at 360 rupees each per mensem - - - - -	12,960 - -		
Ditto of R. Mercer, from 1st April to 8th December 1842, at 360 rupees - - - - -	2,972 14 6		
Ditto of H. Frost, engineer, from 1st February to 31st March 1843, at 250 rupees - - - - -	Rs. 500 - -		
Deduct advanced him in London - - - - -	120 - -		
	380 - -		
Sudder establishment from 1st April 1842 to 28th February 1843, at 459 rupees - - - - -	5,049 - -	18,144 2 11	
Somairpore ditto, from April to December 1842, at different rates - - - - -	1,277 3 6		
Chouk - - ditto - - from ditto - - - - -	1,080 - -		
Kotra Mukundpore - - - ditto - - - - -	1,332 8 1		
Rath and Humeerpore - - ditto - - - - -	797 - 8		
		9,535 12 3	
Temporary establishment of the Sudder station, from July to December 1842 - - - - -	29 13 2		
Hire of ploughmen and coolies during the season - - - - -	6,492 15 6		
Feed of cattle during the year - - - - -	5,162 11 11 $\frac{1}{2}$		
Contingent charges for the same period - - - - -	1,890 8 9		
Godown and office-rent at the Sudder station, from 1 April 1842 to 31 January 1843 - - - - -	1,300 - -		
Purchase of cattle for the use of the plantations - - - - -	14,186 10 9		
Ditto of tents for the cotton-planters, and superintendent's office - - - - -	1,265 - -		
Ditto of carts, plough and other implements - - - - -	3,288 4 4		
Compensation to Mr. Mercer, cotton planter, for property destroyed in the disturbances in Bundlekund - - - - -	2,000 - -		
Amount advanced to Captain Bayles under the authority of Government - - - - -	3,000 - -		
Travelling charges incurred by the superintendent and planters in visiting other districts - - - - -	906 5 -		
Ditto, ditto of the civil surgeon, for attendance on the planters - - - - -	148 - -		
		71,492 4 6	

General Journal for 1843-44, pages 159. 160. 255. 651. 749 to 752, and 299.

Charges incurred from 1st April 1843 to 31st March 1844, viz. :

Salary of J. Finnie, cotton planter, from 1st April 1843 to 31st March 1844, at 250 rupees, and horse allowance at 30 rupees - - - - -	Rs. a. p. 3,360 - -
Tentage allowance of ditto, from 1st April 1843 to 31st October 1843, at 80 rupees - - - - -	560 - -

General Journal for 1843-44, &c.—continued.

Charges incurred from 1 April 1843 to 31 March 1844—contd.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
Salary, tentage, and horse allowance of J. Blount, cotton planter, for April 1843 - - - - -	360	-	-						
Salary and horse allowance of T. J. Terry, cotton planter, from 1st April 1843 to 28th February 1844, at 280 rupees - - - - -	3,080	-	-						
Tentage allowance of ditto, from April to September 1843, at 80 rupees - - - - -	480	-	-						
Salary of H. Frost, engineer, from 1st April 1843 to 31st March 1844, at 250 rupees - - - - -	Rs.	a.	p.						
Arrears of 1842-43 - - - - -	3,000	-	-						
	120	-	-						
	3,120	-	-						
Travelling charges incurred by the planters and engineer, in progress from Calcutta, and in visiting other districts - - - - -				10,960	-	-			
Fitting up an old muzzool building for the accommodation of the cotton planter and engineer at Agra - - - - -				1,882	8	8			
Engineer's establishment of carpenters and blacksmiths, from August 1843 to March 1844 - - - - -				2,035	12	-			
Purchase of a hand gin - - - - -				375	4	-			
Ditto of carts at Rs. 8,396. 2. 10., and various implements, Rs. 943. 10. 11½. - - - - -				475	-	-			
Soomairpoor establishment, from January 1843 to February 1844, at different rates - - - - -	Rs.	a.	p.	9,339	13	9½			
Chouk ditto, from ditto to April 1843, ditto - - - - -	1,288	2	7						
Kotra Mukundpore, from ditto to ditto, ditto - - - - -	390	12	8						
Ruth and Humeerpore, from January to December 1843 ditto - - - - -	755	15	11½						
Agra establishment, from May 1843 to February 1844, ditto - - - - -	655	-	8						
Goruckpore ditto, from 8th March 1843 to 31st January 1844, ditto - - - - -	2,131	6	2						
	1,162	1	9						
Hire of ploughmen and coolies during the season - - - - -				6,383	7	9½			
Feed of cattle during the year - - - - -				2,679	11	1½			
Contingent charges for the same period - - - - -				2,696	9	10			
				3,663	10	1½			

General Journal for 1844-45, pages 136, 137. 675 and 732.

Charges incurred from 1 April 1844 to 31 March 1845, viz. :	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
Salary and horse allowance of T. J. Finnie, cotton planter, from 1st April 1844 to 13 March 1845, at 280 rupees - - - - -	3,197	6	6						
Salary and horse allowance of T. J. Terry, cotton planter, for March 1844 - - - - -	280	-	-						
Ditto - - ditto of J. Blount, cotton planter, from May 1843 to January 1845, at 280 rupees - - - - -	5,880	-	-						
Tentage allowance of ditto, from May to October 1843, at 80 rupees - - - - -	480	-	-						
Salary of H. Frost, engineer, from 1st April 1844 to 31st March 1845, at 250 rupees - - - - -	Rs.	a.	p.						
Arrears for August 1843 - - - - -	3,000	-	-						
	250	-	-						
	3,250	-	-						
Engineer's establishment from April 1844 to February 1845, at 106 rupees - - - - -	1,272	-	-	13,087	6	6			
Somairpoor establishment for March and April 1844 - - - - -	78	5	2						
Goruckpore ditto, from February 1844 to January 1845 - - - - -	1,116	10	8						
Agra establishment, from March 1844 to February 1845 - - - - -	1,436	10	3						
Temporary establishment entertained for the protection of gin houses - - - - -				3,903	10	1			
Hire of ploughmen and coolies during the season - - - - -				453	4	10			
Feed of cattle during the year - - - - -				955	10	1			
Contingent charges for the same period - - - - -				572	8	10			
Travelling charges incurred by the planters and engineers in visiting the out-stations and other districts - - - - -				1,609	4	-			
House-rent allowed to Mr. Blount, cotton planter, whilst stationed at Goruckpore, from February to December 1844, at 30 rupees - - - - -				1,613	6	-			
Expenses incurred in repairing gin houses - - - - -				330	-	-			
Ditto ditto in constructing ditto at Agra, Balu, Kosee and Hatrass - - - - -				1,496	13	9			
Purchase of two cotton screws - - - - -				488	14	9			
Cost of materials for making a railway, and boring apparatus - - - - -				450	-	-			
Ditto - - ditto for constructing machinery for various purposes - - - - -				126	1	-			
Cost of constructing a four-bullock power mill - - - - -				670	-	-			
				500	-	-			

General Journal for 1845-46, pages 198, 199. 336. 796.

Charges incurred from 1 April 1845 to 31 March 1846, viz. :	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
Salary of H. Frost, engineer, from 1st April to 31st July 1845, at 250 rupees - - - - -	1,000	-	-						
Dawk, expenses of ditto, from Agra to Calcutta - - - - -	398	-	-						
Passage-money of ditto to England - - - - -	1,000	-	-						
Ditto, ditto of T. J. Finnie, cotton planter, to America - - - - -	2,868	10	8						
Salary of A. McKenzie, engineer, for June 1845 - - - - -	Rs.	a.	p.						
Ditto, ditto from July 1845 to March 1846, at 150 rupees - - - - -	80	-	-						
	1,350	-	-						
	1,430	-	-						
				6,696	10	8			

26,257. 5 10

General Journal for 1845-46, &c.—continued.

Charges incurred from 1 April 1845 to 31 March 1846—continued.

	Rs.	a.	p.	Rs.	a.	p.
Travelling charges of A. M'Kenzie, engineer, for visiting gin houses at other stations	290	—	—			
Engineer's establishment from March 1845 to March 1846, at 110 rupees	1,430	—	—			
Temporary ditto, from ditto to February 1846	1,432	5	8			
Hire of coolies at the gin houses in different localities	1,279	12	2			
Feed of cattle during the year	1,930	8	—			
Purchase of bullocks	483	—	—			
Contingent charges during the year	1,510	9	8			
Purchase of cotton for cleaning and screwing	17,300	13	9			
Cost of packing and dispatching 486 bales of cotton to Calcutta, including boat-hire and insurance charges	1,548	14	5			
Repairing and constructing gin houses	1,925	1	6			
				35,827	11	10

Charges incurred at Agra from 1 April 1846 to 31 March 1847:

Salary of A. M'Kenzie, engineer, from April to December 1846, at 150 rupees	1,350	—	—			
Engineer's establishment from April to December 1846, at 165 rupees	1,485	—	—			
Ditto for January 1847	85	—	—			
	1,570	—	—			
Purchase of cotton for cleaning and screwing	17,565	2	2			
Charges incurred in despatching 242 bales of cotton to Mirzapore, and 835 bales to Calcutta, including hackery and boat-hire, &c.	4,588	9	4			
Repairing and constructing gin houses	208	3	6			
Repairing and working cotton gin at Kosee	236	8	9			
Feed of cattle during the year	887	2	6			
Temporary establishment	1,099	—	1			
Purchase of bullocks	50	—	—			
Hire of coolies employed on the cotton works	606	8	9			
Contingent charges during the year	861	5	2			
				29,020	8	3
				2,03,089	11	8½

DEDUCT:

Credited at Agra in 1843-44:	Rs.	a.	p.			
Amount advanced for purchase of bullocks refunded	900	—	—			
Credited at Allahabad in 1843-44:						
Planter's travelling allowances refunded	130	—	—			
Ditto tentage - ditto - ditto	155	—	—			
				1,185	—	—
Credited at Agra in 1844-45:						
Sale of cattle	958	7	—			
Ditto cotton seeds	300	—	—			
Credited at Humeerpoor in 1844-45:						
Sale of surplus food	258	5	9			
Ditto of cattle	857	15	9			
Ditto of implements	295	12	6			
Damages recovered in an action at law	327	13	6			
				2,998	6	6
Credited at Agra in 1845-46:						
Sale of cotton seeds	386	3	—			
Contingent charges refunded	1,288	11	5			
				1,674	14	5
Credited at Agra in 1846-47:						
Amount of a policy of insurance on 80 bales of cotton	2,538	—	—			
Sale of cotton seeds	4,656	9	6			
Amount received for screwing 836 bales of cotton	1,463	—	—			
Sale of gunny bags	65	8	—			
				8,723	1	6
				14,581	6	5

Net Charges to 31st March 1847, Company's Rs. 1,88,508 5 3½

Accountant's Office, N. W. P., Agra,
15 June 1848.(signed) A. Shakespear,
Asst. Acct., N. W. P.

(True copy.)

(signed) C. Allen,
Offg. Sec. to Govt. N. W. P.

I.
Bengal and
North Western
Provinces.

Government of Bengal Revenue (No. 6 of 1854).

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

I HAVE the honour, in continuation of the despatch in this department, No. 15, of the 3d September 1853, to forward, for the information of your Honourable Court, the accompanying copy of a communication from the Assistant Accountant to Government, No. 602, dated the 28th of March last, submitting the annual statement of receipts and disbursements on account of the experimental cotton cultivation under American planters in Bengal for the official year 1852-53.

I have, &c.

Fort William, 10 May 1854.

(signed) *Fredk Jas. Halliday.*

(No. 602.)

From Assistant Accountant, Government of Bengal, to the Secretary to the Government of Bengal, dated Fort William, the 28th March 1854.

Sir,

WITH reference to the orders of Government contained in the second paragraph of Mr. Officiating Under Secretary Grey's letter to the address of the Accountant, dated 12th July 1847;

I have the honour to submit the statement as per margin.*

I have, &c.

Fort William,
Accountant's Office, Revenue Department,
28 March 1854.

(signed) *W. Maples,*
Assistant Accountant,
Government of Bengal.

STATEMENT showing the Receipts and Disbursements on account of Experimental Cotton Cultivation under American Cotton Planters in Bengal, for the Year 1852-53, required in Mr. Officiating Under Secretary Grey's letter, No. 535, dated 12th July 1847.

RECEIPTS :		Rs. a. p.	
Received from C. H. Lushington, Esq., Secretary to the Board of Revenue, amount sale proceeds of 25 bales of Assam cotton		236	4 3
DISBURSEMENTS :		Rs. a. p.	
Salary of J. O. Price, Superintendent of Cotton Plantation at Luckinpoore; from November 1851 to March 1852, at 450 per month	2,250 - -		
Contingencies under ditto	790 3 6	3,040	3 6
Ditto of - - ditto ditto ditto of ditto at Durrung, from April to 25th September 1852, at 450 per month	2,625 - -		
Contingencies under ditto	119 9 -	2,744	9 -
Charges for removing implements of the cotton farm at Dacca	- - -	- 8 -	
Value of cotton seeds received from Madras	- - -	117	11 2
		5,902	15 8
Excess of Charge	- - - - -	Rs.	5,666 11 5

(Errors excepted.)

Fort William,
Accountant's Office, Revenue Department,
28 March 1854.

(signed) *W. Maples,*
Assistant Accountant, Government of Bengal.

* Statement showing the receipts and disbursements on account of experimental cotton cultivation under American cotton planters in Bengal, for the year 1852-53.

Revenue Department, 18 May (No. 3) 1847.

Our Governor-General of India in Council,

I.
Bengal and
North Western
Provinces.

Cotton.

Para. 1. WE desire that you will call on the Lieutenant-governor of the North Western Provinces, to cause to be prepared, for transmission to us, a statement of all the expenses which have been incurred in the provinces subject to his authority, for promoting the improvement of the cultivation of cotton, since the date of the arrival of the American planters, up to the 30th April last, showing also any sums that may have been received for sales of cotton, or cotton seed produced on the Government farms, or from the use of machinery or on any other account.

2. We desire that a similar statement may be transmitted to us annually at the close of the official year.

We are, &c.

(signed) *H. St. G. Tucker.*
J. L. Lushington.
&c. &c.

London, 18 May 1847.

Revenue Department, 14 July (No. 4) 1847.

Our Governor of the Presidency of Fort William in Bengal.

PARA. 1. THE paragraphs referred to in the margin* report your proceedings connected with the experimental cotton cultivation of dates subsequent to those noticed in our despatch of the 21st January (No. 1) 1846.

Cotton.

2. We regret that the failure of Mr. Terry's health, and his consequent return to America, rendered it necessary to abandon all operations in the district of Rungpore. From the information by him we think that there were reasonable grounds for anticipating a favourable result, and we shall be glad to learn that, at a future period, means may be found for attempting to improve the cotton of this district. We notice with satisfaction the interest taken in the experiment by Mr. Welby Jackson, the Commissioner.

3. The accounts of the proceedings in the Dacca district, under Mr. Price, are far from encouraging. The want of success in the cultivation of the foreign descriptions of cotton does not appear to be owing to unfitness of soil or climate, but to the ravages of insects, which destroy a large proportion of the pods. It is yet to be ascertained whether these visitations recur periodically, and whether it may not be possible, by changing the time of sowing, to escape the mischief which they have hitherto caused.

4. With respect to the saws for cotton gins, mentioned in your letter of the 2d October (No. 18) 1845, which arrived when you had no mechanic at your disposal competent to set them up, we think it desirable, if they should be still in store, that you should ascertain from the Government of Bombay whether they might not be usefully employed at the cotton establishments at Broach or Dharwar.

We are, &c.

(signed) *H. St. G. Tucker.*
J. L. Lushington,
&c. &c.

London, 14 July 1847.

* Letter dated 13th June (No. 7) 1845, p. 28; letter dated 22 August (No. 16) 1845, pp. 46 to 48, 55, 56; letter dated 2d October (No. 18) 1845, whole; letter dated 27th December (No. 20) 1845, pp. 59 and 60; letter dated 13th April (No. 6) 1846, pp. 32 to 34; letter dated 29th July (No. 12) 1846, p. 25; letter dated 4th August (No. 13) 1846, p. 2; letter dated 24th September (No. 15) 1846, p. 26.

I.

Bengal and
North Western
Provinces.

EXTRACT Revenue Letter from Bengal, dated 28 November (No. 19) 1846.

15th, or Dacca
Division.

23. ANNEXED* will be found Mr. Price's reports on 'the experimental cotton cultivation at Dacca for the months of June and July last.

EXTRACT Fort William Revenue Consultations, 5 August 1846.

No. 4.

From Officiating Secretary to the Sudder Board of Revenue to *F. J. Halliday*, Esq.,
Secretary to the Government of Bengal; dated Fort William, 29 July 1846.

Sir,

I AM directed by the Sudder Board of Revenue to request that you will submit, for the consideration of his Honour the Deputy Governor, the accompanying letter, No. 117, dated 17th instant, and its enclosure, from the Commissioner of Dacca, regarding Mr. Price's labours in the experimental cultivation of cotton during the month of June last.

I have, &c.
(signed) *G. Plowden*,
Officiating Secretary.

No. 5.

From *J. Dunbar*, Esq., Commissioner of Dacca, to the Sudder Board of Revenue,
Fort William.

Gentlemen,

IN forwarding Mr. Price's report for the month of June last, I have the honour to inform your Board that I visited the experimental farm at Toke the day before yesterday, on my way back from Mymensingh. In those places where the caterpillars had committed their ravages, only a sickly plant was to be seen here and there, but in other places the cotton looked remarkably healthy. It was for the most part in flower, and if the weather continues favourable, I think a good return may reasonably be looked for some months hence.

I have, &c.
(signed) *J. Dunbar*,
Commissioner of Revenue.

Commissioner's Office, Dacca Division,
Dacca, 17 July 1846.

(No. 71 of 1846.)

From *J. O. Price*, Esq., Government Cotton Planter, to *J. Dunbar*, Esq., Commissioner of Dacca.

Sir,

I HAVE the honour of submitting to you, for the information of the Honourable the Deputy Governor of Bengal, the monthly report of my proceedings for the month of June.

2. The growth of the plant has been very rapid this month, and particularly so on the red soil, otherwise there is nothing connected with the neej cultivation worth trespassing on your time with; the proceedings on the farm having been much the same as that of last month; neither has there been any with respect to the ryuttee cotton cultivation, not having yet received any seed to supply the persons with that required it; indeed, the expectation of the immediate arrival of some for all the month is the cause of my not being able to report any further respecting it than that I have received very favourable information from Tagoreeah of the cotton plants that were not destroyed by caterpillars or otherwise, and also from Foolbarriah of the lands that have been replanted with seed taken from cotton grown on the small patch of land that I have frequently in my reports mentioned, having planted immediately after my arrival in this district; but should I not in a few days receive seed, I will proceed to the several places at which it has been tried, and supply them, as far as in my power, with seed taken from cotton grown on the farm, although in the present instance I cannot well spare it.

3. Agreeable

* Rev. Proceedings, 5th August 1846, Nos. 4 and 5; Rev. Proceedings, 25th August 1846, Nos. 30 and 31.

3. Agreeable to your wish, as well as that of my own, I have got in preparation several parcels of cotton of different kinds for the purpose of sending to England to obtain the opinion of the manufacturers of it, and likelihood of its meeting with advantage the European market.

Toke Government Farm,
8 July 1846.

I have, &c.
(signed) *J. O. Price,*
Government Cotton Planter.

Commissioner's Office, Dacca Division,
Dacca, 17 July 1846.

I.
Bengal and
North Western
Provinces

EXTRACT Fort William Revenue Consultations, 26 August 1846.

(No. 266.)

From the Officiating Secretary to the Sudder Board of Revenue to *F. J. Halliday*, Esq., Secretary to the Government of Bengal, Revenue Department, Fort William, 21 August 1846.

Sir,

I AM directed by the Sudder Board of Revenue to request that you will submit, for the consideration and orders of the Honourable the Deputy Governor, the accompanying letter in original, No. 131, dated the 4th instant, from the Commissioner of Dacca, together with its enclosure, regarding Mr. Price's experimental cultivation of cotton during the month of July last.

I have, &c.
(signed) *Geo. Plowden,*
Officiating Secretary.

No. 30.
Mis. Dept.
Present:
J. Lewis and
E. M. Gordon,
Esqrs.

(No. 131.)

From the Commissioner of Dacca to the Sudder Board of Revenue, Fort William.

No. 31.

Gentlemen,

I HAVE the honour to transmit copy of Mr. Price's report without date, No. 79, of his proceedings for the month of July, upon which it does not appear necessary to make any remark.

Commissioner's Office, Dacca Division,
Dacca, 4 July 1846.

I have, &c.
(signed) *J. Dunbar,*
Commissioner of Revenue.

(No. 79.)

From *J. O. Price*, Esq., Government Cotton Planter, Dacca, to *J. Dunbar*, Esq., Commissioner of Dacca.

Sir,

I HAVE the honour to submit to you, for the information of the Honourable the Deputy Governor of Bengal, the monthly report of my proceedings for the month of July.

2. The coolies for the greater part of this month have continued to be employed in preparing land and planting cotton seed, and the remainder of it in weeding and moulding the young plants; the cotton generally this month does not appear so healthy as it did in last month, a great number of the leaves on the plants having withered as if blighted; this has likely been occasioned by the sudden change from intense rain to that of heat, accompanied with very drying winds (so much so, that on my return from visiting the ryottee cultivation I found all the cultivated lands as dry and hard as they usually are in November); but I am in hopes the plants will soon resume their former healthy appearance.

3. On the 12th instant I proceeded to visit the ryottee cultivation, and I regret to inform you that at Tagoreah, which I mentioned in my last report having had favourable accounts of, I found partly under water, and the remainder of the soil on which it is planted so saturated with water, that the plants were fast changing from a healthy to a very unhealthy appearance; part of the lands at Sueypoor and Foolbarreah, being high, have not suffered from the inundation, and the cotton continues to look healthy. As soon as the water recedes a little I will supply the persons that have not wrought out all the advances made to them with fresh seed, and select lands, if possible, free from inundation.

4. The cotton wool, which I had the pleasure of mentioning to you my having in preparation to forward to you for exportation, I will not be able to deliver for a short time longer;

I.

Bengal and
North Western
Provinces.

longer; this delay is occasioned principally by the spin-wheel of the gin breaking when ginning it, so that I will now have to extract the seed either by the small churka or by hand picking, either of which is very tedious.

Commissioner's Office, Dacca Division,
Dacca, 4 August 1846.

I have, &c.
(signed) *J. O. Price*,
Government Cotton Planter.

EXTRACT Revenue Letter from Bengal, dated 24 March (No. 7) 1847.

15th or Dacca
Division.

32. I FORWARD,* annexed, Mr. Price's reports on the experimental cotton cultivation at Dacca, for the months of August and October last. The one for September was forwarded with the letter to the Secretary, India House, dated the 27th January.

EXTRACT from the Proceedings of the Government of Bengal, in the Revenue Department,
dated 21 October 1846.

No. 58.

(No. 323.)

From Officiating Secretary to the Sudder Board of Revenue, to *F. J. Halliday*, Esq.,
Secretary to the Government of Bengal, Revenue Department, dated Fort William,
15 October 1846.

Sir,

Mis. Dept.
Present:
J. Lewis and
E. M. Gordon,
Esqrs.

I AM directed by the Sudder Board of Revenue to request that you will submit, for the consideration of his Honor the Deputy Governor, the accompanying letter, in original, No. 157, dated the 16th ultimo, and its enclosure, from the Commissioner of Dacca; being a report on the experimental cultivation of cotton by Mr. Price, for the month of August last.

I have, &c.
(signed) *Geo. Plowden*,
Officiating Secretary.

(No. 157.)

No. 59.

From *J. Dunbar*, Esq., Commissioner of Dacca, to the Sudder Board of Revenue,
Fort William.

Gentlemen,

FROM Mr. Price's report for the month of August 1846, which I have the honour to transmit herewith, your Board will learn that the cotton plants upon the Toke farm have suffered very severely from the ravages of a small green caterpillar. The Bourbon has suffered less than the American cotton, and from all I have yet seen, I am disposed to think that the former is more likely to do well in eastern Bengal than any other description of exotic cotton; but even in regard to it I am naturally less sanguine than I was before these destructive insects made their appearance on the farm.

2. The Bengallee cotton is unquestionably that which will best answer our purpose, and to which Mr. Price should chiefly turn his attention, if it can only be shown that a better system of cultivation than that in use by the natives will result in producing a superior article. When I last saw Mr. Price, I pressed upon him strongly the necessity of trying experiments with it in every possible way; and I would fain hope that before long he will be able to show that with careful cultivation we may have indigenous cotton of sufficient length and strength in the staple to suit it for all the purposes of our English manufactures.

I have, &c.
(signed) *J. Dunbar*,
Commissioner of Revenue.

Commissioner's Office, Dacca Division,
Sylhet, 16 September 1846.

* 15th, or Dacca Division; Revenue Proceedings, 21 October 1846, Nos. 58 and 59; Revenue Proceedings, 23 December 1846, Nos. 16 and 17.

(No. 84.)

From *J. O. Price*, Esq., Government Cotton Planter, to *J. Dunbar*, Esq., Commissioner of Dacca Division, Dacca, dated Toke Government Farm, 7 September 1846.

Sir,

I HAVE the honour to submit to you, for the information of the Honourable the Deputy Governor of Bengal, the monthly report of my proceedings for the month of August.

2. It was with much regret that I informed you in my last report of all the forward cotton on the farm having assumed a much more unhealthy appearance than it previously had, and from the effects of which a great number of its leaves had withered; but this it would have had sufficient time to have recovered from before the dry season would have commenced, soon after which I hoped to have seen it in full bearing; but having been severely attacked in the early part of this month by an innumerable number of small green caterpillars, which have deprived it of more than half its foliage, this hope is therefore now frustrated for a time; and indeed what length of time it may take to recover from the severe check it is now suffering from I am at present not able to state. This second disappointment by insects is particularly unfortunate, as it will naturally destroy any confidence that the favourable appearance of the exotic cotton on the farm might have excited on the minds of the natives, and more particularly as the caterpillars have, in very few instances that I have observed, injured the native kinds of cotton that I am now trying, having confined their ravages almost entirely to the American kind, of which unfortunately, in the present instance, nearly all the forward cotton consists. This partiality they show to it, I think, arises from the better shelter they procure in the large leaf of that kind of cotton, of which, almost on every plant, they appear to select four or five of the largest. These they fold up separately in a sugar-loaf shape, in which they shelter themselves until they have devoured all the more tender leaves. It appears to me, therefore, to be the formation of the leaf of the native cotton that has protected it from their ravages in this season of the year, as it affords little or no shelter for them. I observed lately they have commenced their destruction on the Bourbon plant; but not having much of it, I hope to be able to prevent their injuring it much.

3. I have forwarded a few of the caterpillars to the Agricultural Society, the deputy secretary having kindly offered to endeavour to get a naturalist to examine them, so that, by discovering what genus they are, he may possibly be able to suggest some remedy for their ravages.

I have, &c.
(signed) *J. O. Price*,
Government Cotton Planter.

(True copy.)
(signed) *W. H. Jones*, Assistant.

(No. 348.)

From the Officiating Secretary to the Sudder Board of Revenue to *F. J. Halliday*, Esq., Secretary to the Government of Bengal, Revenue Department, dated Fort William, 9 November 1846.

Rev. Pro.
18 Nov. 1846.
No. 5.

Sir,

I AM directed by the Sudder Board of Revenue to request that you will submit, for the consideration of his Honour the Deputy Governor, the accompanying letter, in original, No. 163, dated the 23d ultimo, and its enclosure, from the Commissioner of Dacca; being a report on Mr. Price's experimental cultivation of cotton for the month of September last.

Mis. Dept.
Present:
J. Lewis and
E. M. Gordon,
Esqrs.

2. The samples referred to in the second paragraph of the Commissioner's letter will be forwarded immediately on their receipt.

I have, &c.
(signed) *Geo. Plowden*,
Officiating Secretary.

(No. 163.)

From *J. Dunbar*, Esq., Commissioner of Dacca, to the Sudder Board of Revenue, Fort William.

Rev. Pro.
18 Nov. 1846.
No. 6.

Sir,

WHEN I last addressed your Board on the subject of Mr. Price's proceedings, the prospects of the Toke cotton farm were somewhat gloomy. That gentleman's report for the month of September, which I have now the honour to transmit, shows that a very favourable change has taken place, and that there is every reason to look for a plentiful return in due season.

I.
Bengal and
North Western
Provinces.

2. I take this opportunity of informing your Board that Mr. Price has just brought down with him ten packages of cotton, cleaned partly by the native churka, and partly by the American gin, with a view to its being sent to England for examination and report. It will be kept here till the arrival of the next steamer, by which (in my absence) it will be transmitted to your Board by my assistant, Mr. Jones.

3. I annex a memorandum of the contents of the several packages.

I have, &c.
(signed) *J. Dunbar*,
Commissioner of Revenue.

Commissioner's Office, Dacca Division,
Dacca, 23 October 1846.

MEMORANDUM.

- | | | | |
|----------|-----|---|--|
| 1.—45ths | - R | - | Grown at Rungpore from Mexican seed. |
| 2.—39 | - R | - | Ditto - - ditto - - ditto. |
| 3.—63 | - F | - | Ditto Dacca Government farm, from American seed. |
| 4.—45 | - F | - | Ditto - - - - ditto - - - - ditto. |
| 5.—48 | - F | - | Ditto - - - - ditto - - - - ditto. |
| 6.—43 | - A | - | Ditto Assam, from native seed. |
| 7.—46 | - T | - | Ditto Tipperah - ditto. |
| 8.—16 | - T | - | Ditto - - - - ditto. |
| 9.—17 | - D | - | Ditto Dacca, from fine native seed. |
| 10.—16 | - B | - | Ditto Foolbarria, from Bourbon seed. |

(No. 91.)

From *J. O. Price*, Esq., Government Cotton Planter, Dacca, to *J. Dunbar*, Esq.,
Commissioner of Dacca.

Sir,

I HAVE the honour to submit to you, for the information of the Honourable the Deputy Governor of Bengal, the monthly report of my proceedings for the month of September.

2. It affords me much pleasure to be able to inform you that the cotton plant on the farm that suffered so much lately from caterpillars has now all, with the exception of about two beegahs, entirely recovered its leaf, and is now looking very healthy again; it is now in full flower, and I am in hopes, notwithstanding all the difficulties it has had to contend with, that it will yield largely during the dry season; indeed, the check it received from the insects has been of service to it, in as far as keeping it from bearing in the rains, which injures the wool not only in colour, but very considerably in strength of staple.

3. The Bourbon seed that I planted in June on the red Kunker soil, mixed with a slight deposit of alluvial soil, is most promising, being now about five feet high, and partly in flower; indeed, I never saw plants of the same age look finer than it does. I hope we will be able to give this kind of soil a trial on a larger scale next season, and particularly so as one-half the labour is sufficient for it that the alluvial level lands require.

4. I have planted a few beegahs from the seed of the fine Dacca cotton, and I am at present preparing land for the Patna seed, of which I hope to be able to plant from 10 to 15 beegahs on the farm, besides the ryottee cultivation with that seed, the exact quantity of which I will not be able to inform you until the end of next month, on account of the seed arriving so late in the season.

I have, &c.
(signed) *J. O. Price*,
Government Cotton Planter.

Dacca, 21 October 1846.

(True copy.)
(signed) *W. H. Jones*, Assistant.

(No. 360.)

Rev. Pro.
18 Nov. 1846.
No. 7.

From the Officiating Secretary to the Sudder Board of Revenue to *F. J. Halliday*, Esq.,
Secretary to the Government of Bengal, Revenue Department, dated Fort William,
13 November 1846.

Sir,

IN continuation of my letter, No. 348, dated the 9th instant, para. 2, I am directed by the Sudder Board of Revenue to transmit herewith ten packages of cotton from Mr. J. O. Price, of Dacca. The accompanying musters of the same cotton, put up separately, will probably obviate the necessity of opening the larger packages.

I have, &c.
(signed) *Geo. Plowden*,
Officiating Secretary.

Mis. Dept.
Present:
J. Lewis and
E. M. Gordon,
Esqrs.

(No. 856.)

From *C. Beadon*, Esq., Under Secretary to the Government of Bengal, to the Honorary Secretary to the Agricultural and Horticultural Society.

Sir,

I AM directed to forward, for the Society's use, a copy of Mr. Price's reports from October 1845 to September last.

2. The Deputy Governor will be happy to receive the opinion of the society on the accompanying six samples of cotton received with Mr. Price's last communication.

Fort William,
18 November 1846.

I have, &c.

(signed) *C. Beadon*,
Under Secretary to the Government of Bengal.

(True copies.)

(signed) *C. Beadon*,
Under Secretary to the Government of Bengal.

From *James Hume*, Esq., Honorary Secretary to the Agricultural and Horticultural Society, to *C. Beadon*, Esq., Under Secretary to the Government of Bengal.

Sir,

I AM directed by the Agricultural Society to request that you will convey to his Honour the Deputy Governor the best thanks of the society for the copies of Mr. Price's cotton reports, which accompanied your letter to my address of the 18th ultimo, and which was submitted at a general meeting held on the 9th instant.

2. I have further the pleasure to annex a report on the several musters of cotton enclosed in your letter under acknowledgment; and have the honour to be, &c.,

Metcalfe Hall, Calcutta,
11 December 1846.

(signed) *James Hume*,
Honorary Secretary.

P.S. The musters are returned for reference.

REPORT by *Mr. Owen Potter*, a Member of the Cotton Committee of the Agricultural Society, on Six Musters of Cotton enclosed in Mr. Under-Secretary *Beadon's* letter of 18 November 1846.

6. Assam : very short in staple, and tender ; free from seeds, and clean.
5. Tipperah : good colour and clean, but short staple ; woolly, dry, and tender.
4. Dacca : short staple, slightly stained, free from seed.
3. Government Farm, American seed : short-stapled for this class, and seems to have been frayed a good deal in the process of cleaning ; dull in colour, free from seed.
2. Rungpore, Mexican Seed : stained, leafy, nibby ; short-stapled for its class.
1. Phoolbariah, Bourbon : the best-stapled sample of the lot, and with some native in it, stained.

Samples 4 to 6 and 2 appear to me as if they had been allowed to remain on the plant in the heat of the sun long after the pod had fully opened, by which the cotton is dried up and injured ; and this is a frequent fault with East India cottons.

Some of these samples are equal to well churka-cleaned Baroach, or Jumboser cottons.

(True copies.)

(signed) *C. Beadon*,
Under Secretary to the Government of Bengal.

(No. 986.)

From *C. Beadon*, Esq., Under Secretary to the Government of Bengal, to the Board of Customs, Salt and Opium.

Gentlemen,

I AM directed by the Honourable the Deputy Governor to forward the accompanying ten packages of Dacca cotton, and to request that your Board will, after having them screwed into bales, make over the same to the Superintendent of Marine, who has received the necessary instructions for its shipment to Europe.

Fort William,
30 December 1846.

I have, &c.
(signed) *C. Beadon*,
Under Secretary to the Government of Bengal.

I.
Bengal and
North Western
Provinces.
Rev. Pro.
18 Nov. 1846.
No. 8.
Revenue.

Rev. Pro.
30 Dec. 1846.
No. 61.

Rev. Pro.
30 Dec. 1846.
No. 62.
Revenue.

I.
Bengal and
North Western
Provinces.

(No. 987.)

From *C. Beadon*, Esq., Under Secretary to the Government of Bengal, to the Acting Superintendent of Marine.

Rev. Pro.
30 Dec. 1846.
No. 62.
Revenue.

Sir,

I AM directed to request that you will obtain freight for ten bales of Dacca cotton that will be made over to you by the Board of Customs, Salt and Opium, dispatching the same under consignment to the Honourable the Court of Directors, with a bill of lading, duplicates of which you will forward to this department in reporting the dispatch.

Fort William,
30 December 1846.

I have, &c.
(signed) *C. Beadon*,
Under Secretary to the Government of Bengal.

(No. 269.)

From the Officiating Superintendent of Marine to the Honourable Sir *T. H. Maddock*, Knt., Deputy Governor of Bengal.

Honourable Sir,

WITH reference to Mr. Under-Secretary Beadon's letter, No. 987, dated the 30th ultimo, I have the honour to report that I have engaged tonnage to England on the ship "Ellenborough" for the cotton therein mentioned, which have been packed up in two bales, at 5*l.* 15*s.* per ton, of 50 cubic feet, payable in England on due delivery, in good order and well-conditioned; and I beg to forward herewith, for transmission to the Honourable the Court of Directors, bills of lading, in duplicate, for the same.

Fort William,
Marine Superintendent's Office,
19 January 1847.

I have, &c.
(signed) *T. E. Rogers*,
Officiating Superintendent.

(True copies.)
(signed) *C. Beadon*,
Under Secretary to the Government of Bengal.

EXTRACT from the Proceedings of the Government of Bengal, in the Revenue Department, dated 23 December 1846.

No. 16.

(No. 403.)

From the Secretary to the Sudder Board of Revenue to *F. J. Halliday*, Esq., Secretary to the Government of Bengal, Revenue Department, dated Fort William, 17 December 1846.

Sir,

I AM directed by the Sudder Board of Revenue to request that you will submit, for the consideration of his Honour the Deputy Governor, the accompanying letter, in original, No. 185, dated the 5th instant, and its enclosure, from the Commissioner of Dacca; being a report on Mr. Price's experimental cultivation of cotton, for the month of October last.

I have, &c.
(signed) *E. Currie*,
Secretary.

No. 17:

(No. 185.)

From *J. Dunbar*, Esq., Commissioner of Dacca, to the Sudder Board of Revenue, Fort William.

Gentlemen,

I HAVE the honour to forward herewith Mr. Price's report of proceedings for the month of October last.

Commissioner's Office, Dacca Division,
Dacca, 5 December 1846.

I have, &c.
(signed) *J. Dunbar*,
Commissioner of Revenue.

(No. 100.)

From *J. O. Price*, Esq., Government Cotton Planter, to *J. Dunbar*, Esq., Commissioner of
Dacca Division, dated Toke Government Farm, 1 November 1846.

Sir,

I HAVE the honour to submit to you, for the information of the Honourable the Deputy Governor of Bengal, the monthly report of my proceedings for the month of October.

The lands that I had intended having prepared early in the month for the Patna native seed I have not been able to put the ploughs into until the latter end of the month, on account of the continued heavy rains that we have had from the 1st until the 20th instant. This is rather unfortunate, as the earlier the seed is planted in this month the better, so as to enable the cotton to have a fair start before the moisture leaves the soil, as also that of leaving sufficient time to pick all the cotton off the plants before the rains commence. The coolies have been engaged, as usual, cleaning the cotton field, and giving mould where required.

I have, &c.
(signed) *J. O. Price*,
Government Cotton Planter.

(True copy.)

(signed) *W. H. Jones*, Assistant.

EXTRACT Revenue Letter from Bengal, dated 31 May (No. 11) 1847.

26. HEREWITH are forwarded Mr. Price's reports * on the experimental cultivation of cotton at Dacca, for the months of November and December 1846, and January 1847. 15th or Dacca Division.

(No. 5, T.)

EXTRACT from the Proceedings of the Government of Bengal, in the Revenue Department, dated 6 January 1847.

(No. 1.)

From the Secretary to the Sudder Board of Revenue to *F. J. Halliday*, Esq., Secretary to the Government of Bengal, Revenue Department, dated Fort William, 2 January 1847.

No. 4.

Sir,

I AM directed by the Sudder Board of Revenue to request that you will submit, for the information of the Honourable the Deputy Governor, the accompanying letter, dated the 1st ultimo, from Mr. *J. O. Price*, being that gentleman's report on the experimental cultivation of cotton for the month of November last.

Mis. Dept.
Present :
J. Lewis and
E. M. Gordon,
Esqrs.

I have, &c.
(signed) *E. Currie*,
Secretary.

(No. 106.)

From *J. O. Price*, Esq., Government Cotton Planter, to *J. Dunbar*, Esq., Commissioner of Revenue of the Dacca Division.

Sir,

I HAVE the honour to submit to you, for the information of the Honourable the Deputy Governor of Bengal, the monthly report of my proceedings for the month of November.

2. The proceedings on the farm this month have almost entirely been confined to that of preparing land and in planting some with the Patna native cotton seed, which the wetness of the previous month, as also that of the late arrival of the seed, would not admit of having done sooner.

3. The

* Revenue Proceedings, 6 January 1847, Nos. 4 and 5; Revenue Proceedings, 10 February 1847, Nos. 28 and 29; Revenue Proceedings, 10 March 1847, Nos. 18 and 19.

I.
Bengal and
North Western
Provinces.

3. The American cotton, and also some native that I planted during the rains, are now yielding cotton lightly, and in picking of which the coolies are occasionally engaged.

4. Since the rains have ceased I have tried the crossing system of improving cotton (but to a limited extent), and I am afraid, up to the present date, with little success, not having been fully acquainted with the system by which it is accomplished. This information I hoped to have obtained from Dr. Burn's (Superintendent of Government cotton cultivation at Broach) correspondence with the Agricultural Society, but on examination I found that it did not give any particulars respecting it; I therefore applied to the assistant secretary of the Agricultural Society for any information that he might be in possession of respecting it, who has kindly favoured me with a number of the Agricultural Society's Journal of October 1842, in which I find Dr. Thompson's mode systematically described; I therefore hope, in a few months, to be able to report more favourably of our experiments in crossing the different kinds of cotton now under cultivation on the farm.

I have &c.
(signed) *J. O. Price,*
Government Cotton Planter.

Toke Government Farm,
1 December 1846.

Commissioner's Office, Dacca Division, Dacca,
17 December 1846.

(True copy.)
(signed) *W. H. Jones,* Assistant.

EXTRACT from the Proceedings of the Government of Bengal, in the Revenue Department, dated 10 February 1847.

No. 28.

(No. 45.)

From the Secretary to the Sudder Board to *F. J. Halliday*, Esq., Secretary to the Government of Bengal, Revenue Department, dated Fort William, 4 February 1847.

Sir,

I AM directed by the Sudder Board of Revenue to request that you will submit, for the information of his Honour the Deputy Governor, the accompanying letter, No. 7, dated the 19th ultimo, from the Commissioner of Dacca, together with its enclosure, being Mr. J. O. Price's report on the experimental cultivation of cotton for the month of December last.

I have, &c.
(signed) *E. Currie,*
Secretary.

Sudder Board of Revenue.

No. 28.

(No. 7 of 1847.)

From *J. Dunbar*, Esq., Commissioner of Dacca, to the Sudder Board of Revenue, Fort William.

Gentlemen,

I HAVE the honour to forward herewith Mr. Price's report for the month of December 1847.

2d. I think it is well that the difficulties which Mr. Price has experienced in the cultivation of the exotic cotton have had the effect of teaching him to turn his attention more to the growth of the indigenous plant. I cannot yet agree with him, however, in thinking that we should in any degree relax from our efforts to prove that foreign cottons can be successfully grown in this district. We must persevere, in spite of every obstacle, for a time; the result of one or two seasons, however unfavourable, should not be allowed to make us despair of ultimate success, so long as even one of the various modes of cultivating cotton remains untried; much, nay all, may depend upon the particular time and manner in which the seed is committed to the ground, and the best season and best method of planting may only be ascertained after many failures. I have written to Mr. Price to this effect.

I have, &c.
(signed) *J. Dunbar,*
Commissioner of Revenue.

Commissioner's Office, Dacca Division, Dacca,
19 January 1847.

(No. 5.)

From *J. O. Price*, Government Cotton Planter, to *J. Dunbar*, Esq., Commissioner
of Dacca Division.

I.
Bengal and
North Western
Provinces.

Sir,

I HAVE the honour to submit to you, for the information of the Honourable the Deputy Governor of Bengal, the monthly report of my proceedings for the month of December.

2. The American cotton, and also about two biggahs of the native kind, which I mentioned in my last report, having commenced yielding cotton, continued to do so up to the 15th instant, by which time the coldness of the nights had had such an effect on it as almost to entirely prevent the bolls from opening, the leaves also became dry and withered, and dropping from the plants, so much so that the ground underneath them is now quite covered with them, and the field generally has all the appearance of a cotton field in America in the latter end of November, when it has finished bearing, and the frost has deprived it of its foliage, with the exception of that of the cotton here having releafed itself in some measure again, but with a much smaller leaf than it had before, and is now perfectly at a stand, and I suppose will remain so until the warm weather commences. The unforeseen obstacles that appear to continue to increase upon us in the growth of foreign cotton convinces me of the great difficulty that will at all times attend growing it in this district to any increased extent, and proves to me the necessity and also the utility of our confining the present experiment more to the growth of the aborigines cotton of this country, of which I observe there are several varieties that have not been tried as yet in this part of India, and one or two of those reported to be of a much longer staple than any we have in this district.

3. Respecting the distribution of the seed I have received from Patna, I have made advances for about 30 biggahs of Ryottee cultivation, and supplied the parties with that seed, but on visiting lately the several places that I had done so, I regret to add that I found only about one-half that quantity planted, and the other half of the land in preparation to receive the seed, but as it would be useless putting in seed so late in the season, I have ordered them to let it remain over until we get rain in March or April. The parties that received the advances say that the great quantity of sickness that has been in the country lately had prevented them from being able to obtain ploughs, and therefore caused the delay in getting the lands prepared sooner. I have also got about eight biggahs of land on the farm planted with that seed, which has all vegetated, but the Bengalee cotton in general, this year, I found to be very backward in every place I have been this month.

The heavy rains in October, and the intense coldness of the nights in the early part of this month, appears to have caused this lateness in the crop.

4. The hands employed on the farm have been principally engaged this month in getting thatching grass and reeds to repair their huts, and also in cleaning out ditches.

I have, &c.
(signed) *J. O. Price*,
Government Cotton Planter.

Toke Government Farm,
1 January 1847.

(True copy.)
(signed) *W. H. Jones*, Assistant.

No Orders.

EXTRACT from the Proceedings of the Government of Bengal in the Revenue
Department, dated 10 March 1847.

(No. 73.)

No. 18.

From the Secretary to the Sudder Board of Revenue to *F. J. Halliday*, Esq.,
Secretary to the Government of Bengal, Revenue Department, dated Fort
William, 6 March 1847.

Sir,

I AM directed by the Sudder Board of Revenue to request that you will submit, for the information of his Honour the Deputy Governor, the accompanying letter from *J. O. Price*, No. 19, dated 1st February last, being his report for the month of January preceding, on the experimental cultivation of cotton.

Mis. Dept.
Present:
J. Lewis and
E. M. Gordon,
Esqrs.

I have, &c.
(signed) *E. Currie*, Secretary.

(No. 19.)

No. 19.

From *J. O. Price*, Esq., Government Cotton Planter, to *J. Dunbar*, Esq., Commissioner of Dacca, dated 1 February 1847.

Sir,

I HAVE the honour to submit to you, for the information of the Honourable the Deputy Governor of Bengal, the monthly report of my proceedings for the month of January.

2. The weather having continued cold all this month, there has consequently no change taken place in the appearance of either the Neej or Ryottee cultivation worth mentioning.

3. I beg leave to inform you, that a number of ryots in Mymensing district have offered to take advances to cultivate the indigenous cotton on a limited scale in the month of April and May by any improved mode of cultivation that may be required of them; also that they will give security for the amount of advances they may receive; this will, therefore, not only be a safe but sure system of introducing among the natives an improved cultivation of cotton, by which, I am confident, a great improvement could be made on the qualities of the native kind of kuppas.

I have, &c.
(signed) *J. O. Price*,
Government Cotton Planter.

Dacca Government Farm,
1 February 1847.

Commissioner's Office, Dacca Division, Dacca,
19 February 1847.

(True copy.)
(signed) *W. H. Jones*, Assistant.

EXTRACT Revenue Letter from Bengal, dated 10 September (No. 17) 1847.

Reports on the
experimental cul-
tivation of cotton
at Dacca.

38. HEREWITH are forwarded Mr. Price's reports* on the experimental cultivation of cotton at Dacca, for the months of February and March.

39. I have requested the accountant, Government of Bengal, to furnish a statement of expenses incurred on account of such cultivation at Dacca, during the year ending 30th April.

Revenue Proceed-
ings, 12th May
1847, Nos. 5 to 9.

40. I have requested the Government of Madras to procure from the superintendent of cotton cultivations at Coimbatore, for the use of the Government experimental plantations at Dacca, a small quantity of acclimated cotton seed of the various descriptions noted in the margin.†

EXTRACT from the Proceedings of the Government of Bengal in the Revenue Department, under date the 28th April 1847.

No. 30.

(No. 107.)

From *E. Currie*, Esq., Secretary to the Sudder Board of Revenue, to *F. J. Halliday*, Esq., Secretary to the Government of Bengal, Revenue Department, dated Fort William, 1 April 1847.

Sir,

I AM directed by the Sudder Board of Revenue to request that you will submit, for the information of his Honour the Deputy Governor, the accompanying letter, No. 30, dated the 1st ultimo, from Mr. J. O. Price, being that gentleman's report on the experimental cultivation of cotton for the month of February.

I have, &c.
(signed) *E. Currie*, Secretary.

* Revenue Proceedings, 28th April 1847, Nos. 30 to 32. Revenue Proceedings, 5th May 1847, Nos. 41 and 42.

† Sea Island, South American, Mexican, Bourbon.

(No. 30 of 1847.)

From *J. O. Price*, Esq., Government Cotton Planter, Dacca, to *J. Dunbar*, Esq.,
Commissioner of the Dacca Division.

No. 31.

Sir,

I HAVE the honour to submit to you, for the information of the Honourable the Deputy-governor of Bengal, the monthly report of my proceedings for the month of February.

2d. In the early part of this month I visited the several places on the Dhullessaree; that I have tried ryottee cultivation with the Patna seed, and, as I had anticipated from late planting, I found that on the poorer kind of land suffering much from the cold and want of moisture in the land; but on visiting one of the places named Oomanundapore, I found the very contrary the case. On about a beegah of land that had been planted there immediately on receipt of the seed, the land having been previously cultivated and manured for the purpose, the plants were about 18 inches high, and extremely healthy in appearance; this, with several other instances that have come under my notice, of which the small patch of Bourbon cotton at Foolharriah is one, that land having been once used as part of a garden, leads me to hope that manure (of which there is none better than I have tried than rotten indigo satee), will I hope enable us to contend against the difficulties that we have experienced, occasioned in a great measure by the extremes of this climate and the exhausted state of much of the soil.

3d. With respect to the neej cultivation, I have not anything to state in addition to what I have previously reported worth mentioning, not having yet had any rain to occasion any change in the appearance of the plants.

Toke Government Farm,
1 March 1847.

I have, &c.
(signed) *J. O. Price*,
Government Cotton Planter.

Commissioner's Office, Dacca Division, Dacca,
19 March 1847.

(True copy.)
(signed) W. H. Jones, Assistant.

(No. 308.)

From *C. Beadon*, Esq., Under Secretary to the Government of Bengal, to the
Accountant, Government of Bengal.

No. 32.

Sir,

I AM directed by the Deputy Governor to request that you will furnish a statement of Revenue expenses incurred on account of the experimental cotton cultivation, under Mr. Price, at Dacca, during the year ending on the 30th instant.

Fort William,
28 April 1847.

I have, &c.
(signed) *C. Beadon*,
Under Sec. to the Govt. of Bengal.

EXTRACT from the Proceedings of the Government of Bengal in the Revenue
Department, under date the 5th May 1847.

(No. 134.)

From *E. Currie*, Esq., Secretary to the Sudder Board of Revenue, to
F. J. Halliday, Esq., Secretary to the Government of Bengal, Revenue
Department.

No. 41.

Sir, Fort William, 26 April 1847.

I AM directed by the Sudder Board of Revenue to request that you will submit, for the information of his Honour the Deputy Governor, the accompanying letter, No. 38, dated the 1st instant, from Mr. J. O. Price, being that gentleman's report on the experimental cultivation of cotton for the month of March last.

Miss. Dept.
Present:
J. Lewis, Esq. and
T. R. Davidson,
Esq.

I have, &c.
(signed) *E. Currie*, Secretary.

I.
Bengal and
North Western
Provinces.

(No. 38.)

From *J. O. Price*, Esq., Government Cotton Planter, Dacca, to *J. Dunbar*, Esq.,
Commissioner of the Dacca Division.

No. 42.

Sir,

I HAVE the honour to submit to you, for the information of the Honourable the Deputy Governor of Bengal, the monthly report of my proceedings for the month of March.

2d. The weather having continued dry all this month, with exception of the 27th instant, on the evening of which there was a severe gale and some rain, but not enough to enable us to commence planting, I have consequently kept the coolies employed cleaning off jungle on a piece of high rent land belonging to the farm, for the purpose of giving that kind of soil a fair trial, by planting it with good seed of the several kinds we have got as soon as the rains commence. This sort of land I am in hopes will prove better suited for planting in the rainy season than that of the alluvial kind, being easily kept clean when cultivated, which it is very difficult to do with the latter kind in the wet season.

3d. It was my intention to have visited Tipperah district this month; but, on second consideration, I thought it would be more advisable to defer going there until the rains commenced, and then take some exotic seed with me, and see it properly planted myself, as some seed that I sent there last year, I was informed, never vegetated, although it was perfectly fresh.

4th. I visited the several places this month again at which we have ryottee cultivation, and found the two places of which I reported favourably of last month still looking healthy and not suffering in any way from the drought: and on my return to the farm, I supplied the Rajah of Tipperah, through *J. P. Wise*, esq., with about one and a half maunds of fine native cotton seed, and also with a bag of acclimated American, both of which I am informed he intends having planted near his residence in Tipperah, as the cotton that is generally grown in that district is of a very indifferent description.

5th. In recommending indigo sittee in my last report as an excellent manure for cotton lands, I omitted mentioning an experiment I tried last year with four different kinds of manure when planting cotton seed, and, after giving all the same cultivation, the result was that the sittee was fully as good a manure, if not better, than any of the others for cotton cultivation. The great quantity of it that is available in this district I hope will plead my excuse for having again trespassed on your time with this subject.

Government Farm,
1 April 1847.

I have, &c.
(signed) *J. O. Price*,
Government Cotton Planter.

Commissioner's Office, Dacca Division, Dacca,
10 April 1847.

(True copy.)
(signed) *W. H. Jones*, Assistant.

EXTRACT from the Proceedings of the Government of Bengal in the Revenue Department, under date the 12th May 1847.

(No. 128.)

No. 5. From *E. Currie*, Esq., Secretary to the Sudder Board of Revenue, to *F. J. Halliday*, Esq., Secretary to the Government of Bengal, Revenue Department, dated Fort William, 22d April 1847.

Sir,

I AM directed by the Sudder Board of Revenue to request that you will submit for the orders of the Honourable the Deputy Governor the accompanying letter, No. 52, dated the 7th instant, from the Commissioner of Dacca, and its enclosure, with the Board's recommendation that Mr. Price's application to be provided with a further supply of cotton seeds be complied with.

Sudder Board of Revenue.

I have, &c.
(signed) *E. Currie*, Secretary.

Miss. Dept.
Present:
J. Lewis, Esq. and
T. R. Davidson,
Esq.

(No. 52.)

From *J. Dunbar*, Esq., Commissioner of Dacca Division, to the Sudder Board of Revenue,
Fort William.

No. 6.

Gentlemen,

I HAVE the honour to forward herewith a copy of a letter from Mr. Price, No. 27, dated 2d instant, soliciting a further supply of cotton seed of various kinds.

2d. Mr. Price was in Dacca a few days since, and I had a good deal of conversation with him upon the subject of our present experiments, the result of which, so far as they have gone, is a conviction on his part, that of the several kinds of foreign cotton yet tried the Bourbon is the most likely to do well in this part of the country; I hope, therefore, that measures will be immediately taken for procuring a further supply of Bourbon seed, so as to enable Mr. Price to put it in the ground in September next.

3d. I hope it will also be in the power of the Government to procure some Sea Island, South American and Mexican cotton seeds. I am more anxious about the Bourbon, however, as the extraordinary fertility of a small patch which I have seen bearing produce for more than two years at Foolbariah, leads me to think this kind of cotton is very likely to thrive all over the district.

Commissioner's Office, Dacca Division,
Dacca, 7 April 1847.

I have, &c.
(signed) *J. Dunbar*,
Commissioner of Revenue.

(No. 37.)

From *J. O. Price*, Esq., Government Cotton Planter, Dacca, to *J. Dunbar*, Esq.,
Commissioner of the Dacca Division.

Sir,

I BEG leave to solicit your assistance in applying to Government for a supply of such exotic cotton seeds, such as we have not yet had an opportunity of trying, viz., Sea Islands, South American and Mexican, also Bourbon, of which we once got from Coimbatore, but very little of it vegetated; however, from what I have seen of the little that did, I am inclined to be of opinion that it will suit this country better than the American kind, and that for several reasons; in the first place, it stands the dry weather much better than the other, and in addition to which the cotton is easily divested of its seed by the use of the common churka, which I am in hopes will be a great inducement to the natives to cultivate it. If we could procure, by September, four maunds of that seed, and one or two maunds of each of the other kinds, it would be in sufficient time for planting; indeed if cotton seed is not planted at a proper time in this country, very little can be expected from it; of this we have had sufficient experience, on account of the seed supplied the farm having, with exception of once, all arrived out of season.

Government Farm,
2 April 1847.

I have, &c.
(signed) *J. O. Price*,
Govt. Cotton Planter.

Commissioner's Office, Dacca Division,
Dacca, 7 April 1847.

(True copy.)
(signed) *W. H. Jones*, Assistant.

(No. 325.)

From *C. Beadon*, Esq., Under Secretary to the Government of Bengal, to the Honorary
Secretary, Agricultural and Horticultural Society.

No. 7.

Sir,

I AM directed by the Honourable the Deputy Governor to request that the Society will be good enough to procure for the use of the Government experimental plantation at Dacca, a small supply of cotton seed of the various descriptions noted in the margin.*

Fort William,
28 April 1847.

I have, &c.
(signed) *C. Beadon*,
Under Secretary to the Govt. of Bengal.

* Sea Island, South American, Mexican, Bourbon.

I.
Bengal and
North Western
Provinces.

(No. 326.)

From *C. Beadon*, Esq., Under Secretary to the Government of Bengal, to *E. Currie*, Esq.,
Secretary to the Sudder Board of Revenue.

Revenue. Sir,
IN reply to your letter, No. 128 of the 22d instant, with enclosures, I am directed to inform you that instructions have been issued in the proper quarter for the procurement of the seeds required by Mr. Price.

2d. The original enclosures are returned, copies having been kept for record.

Fort William, I have, &c.
(signed) *C. Beadon*,
28 April 1847. Under Sec. to the Govt. of Bengal.

From *James Hume*, Esq., Honorary Secretary to the Agricultural and Horticultural Society, to *C. Beadon*, Esq., Under Secretary to the Government of Bengal.

No. 8. Sir,
I AM directed by the Agricultural Society to express its regret at not being able to meet the request conveyed in your application of the 28th ultimo. The society has not, unfortunately, any fresh foreign cotton seed in store, neither is it able to obtain any in the market. Small supplies of acclimated seed, it is suggested, might be obtained from the Government cotton farms at Coimbatore.

Calcutta, I have, &c.
(signed) *James Hume*,
6 May 1847. Hon. Sec., Agricultural and Horticultural Society.

(No. 106.)

No. 9. From *C. Beadon*, Esq., Under Secretary to the Government of Bengal, to the Secretary to the Government of Fort St. George.

Revenue. Sir,
I AM directed by the Honourable the Deputy Governor of Bengal to request that, with the permission of the Most Noble the Governor in Council, instructions may be issued to the superintendent of cotton plantation at Coimbatore to send a small quantity of acclimated cotton seed, of the various descriptions noted in the margin,* to the address of the Superintendent of Marine, for the use of the Government experimental plantation in Dacca.

Fort William, I have, &c.
(signed) *C. Beadon*,
7 May 1847. Under Sec. to the Govt. of Bengal.

(No. 356.)

COPY forwarded to the Superintendent of Marine, with a request that he will forward the seed immediately on its arrival to Mr. J. O. Price, cotton planter at Dacca.

EXTRACT from a General Letter from the Government of Bengal to the Honourable the Court of Directors in the Revenue Department, dated the 13th January 1848 (No. 3.)

Reports on the cotton cultivation at Dacca. 32. Herewith are forwarded Mr. Price's reports † on the experimental cultivation of cotton at Dacca, for the months of April, May, June, and July last.

* Sea Island, South American, Mexican, Bourbon.

† Revenue Proceedings, 2d June 1847, Nos. 10 and 11. Revenue Proceedings, 7th July 1847, Nos. 14 and 15. Revenue Proceedings, 18th August 1847, Nos. 17 and 18. Revenue Proceedings, 25th August 1847, Nos. 7 and 8.

EXTRACT from the Proceedings of the Government of Bengal, in the Revenue Department, under date the 2d June 1847.

I.
Bengal and
North Western
Provinces.

(No. 172.)

From the Officiating Secretary to the Sudder Board of Revenue to *F. J. Halliday*, Esq., Secretary to the Government of Bengal, Revenue Department, dated Fort William, the 25th May 1847.

No. 10.

Sir,

I AM directed by the Sudder Board of Revenue to request that you will submit for the consideration of his Honour the Deputy Governor, the accompanying letter (No. 49), dated the 1st instant, from Mr. J. O. Price, being his report for the month of April last, on the experimental cultivation of cotton.

Miss. Dept.
Present:
J. Lewis, Esq. and
E. M. Gordon, Esq.

I have, &c.
(signed) *G. Plowden*,
Officiating Secretary.

(No. 49.)

From *J. O. Price*, Esq., Government Cotton Planter, to *J. Dunbar*, Esq., Commissioner of Dacca.

No. 11.

Sir,

I HAVE the honour to submit to you, for the information of the Honourable the Deputy Governor of Bengal, the monthly report of my proceeding for the month of April.

2. The weather having continued very dry until the 16th instant, the coolies therefore continued employed up to that time in preparing land for seed, and in hoeing among the old cotton, but having had a heavy fall of rain on the above-named date, the hands have since that time been employed in planting the prepared land, and cleaning and supplying the young cotton, also in pruning the old cotton.

3. The natives to whom I lately gave advances for ryottee cultivation have their lands all well prepared for seed, and will plant them early in the ensuing month, which is their favourite time for planting in high lands.

4. I have just returned from examining the cultivation at the several places that I made advances in the end of October last; the persons that received advances at that time are now engaged either in cleaning and supplying the lands they then planted, or in planting newly prepared land, not having been able to get it prepared in time for planting when they received advances; in addition to which, the Patna seed having arrived so late in the season, was a great drawback, but as this seed is still perfectly good, I am in hopes it will yet turn out well, as, at the two places I before mentioned (where the land had been prepared for it when it arrived) there is now the finest looking Bengallee cotton I have yet seen; in fact, it branches out more like exotic cotton than that of the native kinds.

Dacca Govt. Farm, 1st May 1847.

I have, &c.
(signed) *J. O. Price*,
Govt. Cotton Planter.

Commissioner's Office, Dacca Division,
Dacca, the 13th May 1847.

(True copy.)
(signed) *W. H. Jones*,
Assistant.

EXTRACT from the Proceedings of the Government of Bengal, in the Revenue Department, under date the 7th July 1847.

(No. 218.)

From the Secretary to the Sudder Board of Revenue to *F. J. Halliday*, Esq., Secretary to the Government of Bengal, Revenue Department, dated Fort William, the 1st July 1847.

No. 14.

Sir,

I AM directed by the Sudder Board of Revenue to request that you will submit, for the consideration of his Honour the Deputy Governor, the accompanying letter (No. 60), dated the 1st ultimo, from Mr. J. O. Price, to the address of the Commissioner of Dacca, being that gentleman's report on the experimental cultivation of cotton for the month of May last.

Miss. Dept.
Present:
J. Lewis, Esq. and
E. M. Gordon, Esq.

I have, &c.
(signed) *G. Plowden*,
Secretary.

I.
Bengal and
North Western
Provinces.

No. 15.

(No. 60 of 1847.)

From *J. O. Price, Esq.*, Government Cotton Planter, Dacca, to *J. Dunbar, Esq.*,
Commissioner of 15th Division, Dacca.

Sir,

I HAVE the honour to submit to you, for the information of the Honourable the Deputy Governor of Bengal, the monthly report of my proceedings for the month of May.

2d. I have been engaged the greater part of the month in again visiting the several places in which we have ryottee cotton cultivation, and I have much pleasure in stating that that which was planted in the latter end of last year continues to improve very rapidly, also that which has been lately planted has vegetated well. We have now about 61 beegahs of ryottee cultivation, nearly all of which is planted with the Patna Boga seed.

3d. There is also on the farm 18 beegahs planted with Patna seed, principally with the Boga kind, the Nurmah kind not having kept so well; also 11 beegahs planted with Dacca seed, so that we have about 90 beegahs of indigenous cotton this year, which I hope may turn out well, as it appears to be much better suited for the exhausted lands of this country than the exotic kinds are, unless where the land has been manured and otherwise well prepared for the seed of the latter kinds, which would prove too expensive for the generality of ryots in this district; but to those who have the means of doing so, it would no doubt (like the land in every other country) abundantly repay them for the trouble and expense of doing so. The pruned cotton is now fast forming new branches and leaves. I am in hopes we will derive two benefits from the pruning system, namely, that of preventing the caterpillars from accumulating in the plants in the way they did last year in the months of June and July, also that of preventing it from blossoming and bearing in the rainy months, as the cotton picked during that time is of an inferior quality; besides, the plant being exhausted yields very lightly in the dry season, during which time it is desirable to pick the whole crop if possible.

4th. I have now got 42 plants growing from seed procured from crossed cotton, some of which are in flower, and others loaded with bolls, a few of which I have already pulled, the wool of which was of a fine long staple, but much injured by rain and a small insect that had got into the bolls and stained the cotton very much, also destroyed the seed, but I expect in the course of a month or two, if we have any dry weather, to save seed enough to plant out a small patch of it, which would bear in the dry season, and therefore enable us to judge better of the quantity as well as quality of cotton that may be expected from it, besides the advantage of getting good seed.

Dacca Government Farm,
1 June 1847.

I have, &c.
(signed) *J. O. Price,*
Govt. Cotton Planter.

Commissioner's Office, Dacca Division,
Dacca, 15 June 1847.

(True copy.)

(signed) *W. H. Jones,*
Assistant.

EXTRACT from the Proceedings of the Government of Bengal, in the Revenue Department, under date 18 August 1847.

(No. 242.)

No. 17.

From the Secretary to the Sudder Board of Revenue to *F. J. Halliday, Esq.*,
Secretary to the Government of Bengal, Revenue Department, dated Fort
William, 21st July 1847.

Sir,

I AM directed by the Sudder Board of Revenue to request that you will submit, for the information of his Honour the Deputy Governor, the accompanying letter, No. 67, dated the 1st instant, from Mr. J. O. Price, being that gentleman's report on the experimental cultivation of cotton for the month of June last.

I have, &c.
(signed) *G. Plowden, Secretary.*

Miss. Dept.
Present:
J. Lewis, Esq. and
E. M. Gordon, Esq.

(No. 67.)

From *J. O. Price*, Esq., Government Cotton Planter, to *J. Dunbar*, Esq., Commissioner of Dacca.

I.
Bengal and
North Western
Provinces.

No. 18.

Sir,

I HAVE the honour to submit to you, for the information of the Honourable the Deputy Governor of Bengal, the monthly report of my proceedings for the month of June.

The weather from the 1st instant until the 18th having been almost a continuation of heavy rains, enables me only to report partially of the ryottee cultivation, having been only able in the latter end of the month to visit Burrybarry and Quinamundul in Mymensing district, at both of which places I found the young cotton very promising.

All the cotton in the farm, with the exception of a few biggahs that are in a low situation, and have suffered from the late heavy rains, now looking very healthy and growing fast; and, I am happy to add, has, as yet, escaped the caterpillars. The coolies have been engaged all this month in weeding and moulding the young cotton planted in April and May, with the exception of a few hands occasionally picking cotton.

Dacca Government Farm,
1 July 1857.

I have, &c.
(signed) *J. O. Price*,
Govt. Cotton Planter.

Commissioner's Office, Dacca Division, Dacca,
8 July 1847.

(True copy.)
(signed) W. H. Jones, Assistant.

EXTRACT from the Proceedings of the Government of Bengal in the Revenue Department, under date 25 August 1847.

(No. 266.)

From the Secretary to the Sudder Board of Revenue to *F. J. Halliday*, Esq., Secretary to the Government of Bengal, Revenue Department, dated Fort William, 19 August 1847.

No. 7.

Sir,

I AM directed by the Sudder Board of Revenue to request that you will submit, for the consideration of his Honour the Deputy Governor, the accompanying letter, No. 74, dated the 1st instant, from Mr. J. O. Price, being his report on the experimental cultivation of cotton for the month of July last.

Miss. Dept.
Present :
J. Lewis, Esq. and
E. M. Gordon, Esq.

I have, &c.
(signed) *G. Plowden*, Secretary.

(No. 74 of 1847.)

From *J. O. Price*, Esq., Government Cotton Planter, to *J. Dunbar*, Esq., Commissioner of Dacca Division.

No. 8.

Sir,

THE month of July having expired, I have the honour of informing you that no change of any consequence has taken place in the management of either the neej or ryottee cotton cultivation under my charge from that of the preceding month. I therefore refrain from trespassing on the Honourable the Deputy Governor's time, and on that of your own, by submitting to you a repetition of my June report.

Dacca Government Farm,
1 August 1847.

I have, &c.
(signed) *J. O. Price*,
Govt. Cotton Planter.

Commissioner's Office, Dacca Division, Dacca,
5 August 1847.

(True copy.)
(signed) W. H. Jones, Assistant.

I.

Bengal and
North Western
Provinces.

EXTRACT from a General Letter from the Government of Bengal to the Hon. the Court of Directors in the Revenue Department, No. 14, of 1848, dated 27th September.

15th or Dacca
Division.
Regarding the
experimental cot-
ton cultivation at
Dacca.
Revenue Proceed-
ings, 18th August
1847, Nos. 16 to
19.

35. As required by Government Orders of the 28th April 1847, the Office of Account submitted a statement, showing the expenses incurred during the year 1846-47, on account of the experimental cotton cultivation at Dacca, under Mr. J. O. Price, Government cotton planter.

36. Sir Herbert Maddock felt constrained to bring to the notice of the Supreme Government the unsatisfactory progress made in this experiment.

37. Herewith are forwarded Mr. Price's reports * on the cotton cultivation at Dacca for the months of August, September, October, November and December 1847, and January 1848.

38. The Toke farm, it will be seen, has been abandoned, the soil not being well adapted for the growth of good cotton, and for the future the experiment will be tried in localities more suitable for carrying it on.

39. The Board have been called upon to report as to the prospects of any successful and profitable result being obtained from Mr. Price's experiments, and as to the expediency of continuing them for any longer period.

(No. 631.)

From the Officiating Under Secretary to the Government of Bengal to the Secretary to the Government of India, Home Department.

Sir,

Revenue.

WITH reference to the resolution of the Supreme Government, dated the 23d August 1843, received with Mr. Officiating Secretary Davidson's letter, No. 40, of that date, the honourable the Deputy Governor of Bengal desires to bring to the notice of the Supreme Government the progress of the experimental cotton cultivation conducted under Mr. Price, which his Honour cannot regard as satisfactory. I am directed accordingly to forward the accompanying abstract of Mr. Price's reports from January 1846 to the end of April 1847, together with a statement of the charges incurred on account of the cultivation for the year ending the 30th April last.

I have, &c.

(signed) *William Grey*,
Officg. Under Secy. to Govt. of Bengal.

Fort William, 16 August 1847.

ABSTRACT.

January 1846. AT the farm at Toke, preparing the land, and planting the same with cotton seed, as well as finishing, cleaning, moulding the young cotton plants.

February 1846. No seed planted this month, and all the cotton planted since last October has suffered very much from the ravages of the caterpillar.

March 1846. Mr. Price visited all the places at which ryottee cotton cultivation is carried on, and with the exception of nine beegahs, found the cultivation totally destroyed by insects. In the farm, coolies have been employed in preparing land to receive seed.

April 1846. Coolies employed in procuring satee from a neighbouring indigo factory to the farm, to be used as manure in the land.

May 1846. Coolies employed in manuring, and in moulding the young cotton plants, as well as in preparing land for seed, and in planting some partly with Bourbon and partly with American seed. Planting indigenous seed on some of the land already planted with exotic seed has also been resorted to at the farm, in order to make a trial of the crossing system.

Mr.

* Mr. Price's reports regarding the cotton cultivation.—Revenue Proceedings, 13th October 1847, Nos. 5 and 6. Revenue Proceedings, 15th December 1847, Nos. 19 to 21. Revenue Proceedings, 1st December 1847, Nos. 11 and 12. Revenue Proceedings, 2d February 1848, Nos. 11 and 12. Revenue Proceedings, 16th March 1848, Nos. 8 and 9. Revenue Proceedings, 29th March 1848, Nos. 17 and 18.

Mr. Dunbar states that he has visited the experimental farm at Toke, and that in those places where the caterpillar had appeared only a sickly plant was to be seen, but that in other places the cotton looked remarkably healthy and was for the most part in flower. Mr. Price reports that the growth of the plant had been very rapid this month, and that he received very favourable accounts from all quarters. Want of seed complained of. Several parcels of cotton of different kinds are in course of preparation, for the purpose of being sent to England. The samples were shipped on the "Ellenborough" last January.

June 1846.

At the farm land being prepared, and cotton seed planted. The cotton does not appear so healthy as it did the last month, owing to the sudden change from excessive rain to heat. The same is said of the cotton at Tagoreah; but at Lukypore and Foolbarreah the cotton continues to look healthy.

July 1846.

The ravages of the green caterpillar, on the cotton sown in the farm, appear to be very extensive, and to have been confined almost entirely to the American cotton. The Commissioner is of opinion that the Bourbon cotton is more likely to do well in Eastern Bengal than any other description of exotic cotton, but that the Bengallee cotton is unquestionably that which will best answer.

August 1846.

A very favourable report is given of the cotton plant at the farm which suffered so much from the green caterpillar. The whole, with exception of about two begahs, having entirely recovered its leaf, and being in full flower. The Bourbon seed, planted in June on the red kunkur soil, looks the most promising. A few beegahs have been planted with the fine Dacca cotton, and land is being prepared for the Patna seed.

September 1846.

On account of the heavy rains, no particular progress reported.

October 1846.

At the farm land has been under preparation, and some of it planted with the Patna native cotton seed. The crossing system has not succeeded so well as was expected; ascribed by Mr. Price to his not being fully acquainted with the system.

November 1846.

The cold appears to have had a bad effect upon the cotton growing at the farm. Mr. Price speaks despondingly of the experiment, as far as regards the growth of foreign cotton, and recommends that the present experiments be confined more to the aborigines cotton of the country. Seed has been distributed plentifully for ryottee cultivation, and the usual work has been going on at the farm.

December 1846.

The cold continuing, no change has taken place in the cultivation. A number of ryots in the Mymensingh district has offered to take advances to cultivate the indigenous cotton on a limited scale, furnishing security for the advances made.

January 1847.

On the whole, the state of cultivation appears to be much the same as that described in the last two or three reports.

February 1847.

The weather continued dry all this month, except the occurrence of a severe gale on the evening of the 27th, attended with some rain, but not sufficient to commence planting. Coolies employed in cleaning off jungle in a piece of high rent land for planting in the rainy season. In two of the several places under ryottee cotton cultivation, visited by Mr. Price, the plants were looking healthy, and had not suffered by the drought.

March 1847.

Continued dry weather; heavy fall of rain on the 16th; since which the coolies were employed in planting the prepared land, cleaning and supplying the young, and pruning the old cotton plants. The high lands prepared for seed will be planted early in the ensuing month. The persons to whom advances were made in October last now engaged either in cleaning and supplying the lands then planted, or in planting newly prepared land. A portion of the Patna seed planted in two places where the land had been prepared for it when it arrived, has produced the finest looking Bengallee cotton yet seen.

April 1847.

(signed) *Wm. Grey,*
Offg. Under Secy. to the Govt. of Bengal.

(No. 132.)

From *W. Maples, Esq.,* Officiating Extra Assistant Accountant, Government of Bengal, Revenue Department, to *F. J. Halliday, Esq.,* Secretary to the Government of Bengal, Revenue Department.

Sir,

In obedience to the orders of his Honor the Deputy Governor of Bengal, conveyed in Mr. Under Secretary Beadon's letter to the address of the Accountant, of the 28th April last, I have now the honour to submit the statement as per margin.*

I have, &c.
(signed) *W. Maples,*
Offg. Extra Assist. Acc. Govt. of Bengal.

Fort William, 21 July 1847.

* Statement showing the expenses incurred during the year 1846-47 on account of the experimental cotton cultivation at Dacca under Mr. J. O. Price, Government Cotton Planter.

I.

Bengal and
North Western
Provinces.

STATEMENT showing the EXPENSES incurred during the Year 1846-47, on Account of the Experimental COTTON CULTIVATION at *Dacca*, under Mr. *J. O. Price*, Government Cotton Planter, required in Mr. Under Secretary *Beadon's* Letter of the 28th April 1847, No. 308.

	<i>Rs.</i>	<i>a.</i>	<i>p.</i>	<i>Rs.</i>	<i>a.</i>	<i>p.</i>
Salary of <i>J. O. Price</i> , Government cotton planter, from March 1846 to February 1847, at 450 rupees, as per <i>Dacca</i> Treasury accounts, from May 1846 to April 1847	-	-	-	5,400	-	-
Establishment under ditto from ditto to ditto, at 42 rupees	-	-	-	504	-	-
Godown rent	-	-	-	32	-	-
Miscellaneous Contingencies, viz. :—	<i>Rs.</i>	<i>a.</i>	<i>p.</i>			
Cooley hire	942	5	6			
Charges for minding cattle	29	-	-			
Ditto for carpenter's, &c., work	101	8	-			
Boat hire	39	2	-			
Charges for keeping elephants	119	2	-			
Purchase of bags for keeping cotton	3	11	6			
Ditto of oil-cakes	10	-	-			
Ditto of arsenic for killing rats in the godown	1	-	-			
				1,245	13	-
Rent of lands occupied by the cotton farm	-	-	-	93	12	-
Purchase of stationery	-	-	-	4	-	-
Purchase of cotton seeds	-	-	-	14	8	-
Advances to individuals for cultivating cotton	-	-	-	222	8	-
						1,612 9 -
Export Warehouse :						
January 1847 : Charges on <i>Dacca</i> cotton	-	-	-	1	2	6
February 1847 : Ditto - - ditto	-	-	-	4	12	-
						5 14 6
				<i>Co's. Rs.</i>		7,522 7 6

(Errors excepted.)

Fort William, Accountant's
Office, Revenue Department,
21 July 1847.

(signed) *W. Maples*,
Offg. Extra Assist. Acct. Govt. of Bengal.

(True copies.)

(signed) *Wm. Grey*,
Offg. Under Secy. to the Govt. of Bengal.

EXTRACT from the Proceedings of the Government of Bengal in the Revenue Department, under date the 13th October 1847.

(No. 324.)

No. 5.

From the Secretary to the Sudder Board of Revenue to *F. J. Halliday*, Esq., Secretary to the Government of Bengal, Revenue Department, dated Fort William, the 5th October 1847.

Sir,

Miss. Dept.
Present :
J. Lewis, Esq. and
E. M. Gordon, Esq.

I AM directed by the Sudder Board of Revenue to request that you will submit for the consideration of his Honor the Deputy Governor, the accompanying letter, No. 79, dated the 1st September last, being Mr. *J. O. Price's* report on the experimental cultivation of cotton for the month of August last.

I have, &c.
(signed) *Geo. Plowden*, Secretary.

(No. 79 of 1847.)

From *J. O. Price*, Esq., Government Cotton Planter, Dacca, to *J. Dunbar*, Esq.,
Commissioner of Revenue, Fifteenth Division, Dacca.

Sir,

I HAVE the honour to submit to you, for the information of the Honourable the Deputy Governor of Bengal, the monthly report of my proceedings for the month of August 1847.

I have much pleasure in being enabled to state that nearly all the lands planted with Patna seed, booth neej and ryottee, continue to look very healthy; and having escaped any injury from the caterpillars or other insects up to the present date, I am in great hopes, from the superior appearance it has to that of the kinds usually planted in this district, and the favourable opinion that the ryots have of it at present, that they will be induced to continue the cultivation of it. The small quantity of Bourbon cotton we have on the farm, also looks very well at present, as also the greater part of the American, although the stiff lands in the northern part of this district are not so well suited for its growth, as I am in hopes we will find the chur lands to the southward.

Dacca Government Farm,
1 September 1847.

I have, &c.
(signed) *J. O. Price*,
Government Cotton Planter.

Commissioner's Office, Dacca Division, Dacca,
21 September 1847.

(True copy).

(signed) W. H. Jones, Assistant.

EXTRACT from the Proceedings of the Government of Bengal, in the Revenue Department, under date the 15th December 1847.

(No. 373.)

From the Secretary to the Sudder Board of Revenue, to *T. J. Halliday*, Esq.,
Secretary to the Government of Bengal, Revenue Department, dated Fort
William, 23 November 1847.

No. 19.

Sir,

I AM directed by the Sudder Board of Revenue to request that you will submit, for the consideration of his Honor the Deputy Governor the accompanying letter, No. 163, dated the 6th instant, from the Commissioner of Dacca, and its enclosure, regarding Mr. J. O. Price's experimental cultivation of cotton during the month of September last.

Miss. Dept.
Present :
J. Lewis, Esq. and
E. M. Gordon, Esq.

2. The Board fully concur in the Commissioner's recommendation that Mr. Price be allowed to withdraw gradually from the Toke farm, and transfer his experiments to localities where experience may lead him to look for more success in the cultivation of cotton.

I have, &c.
(signed) *Geo. Plowden*,
Secretary.

(No. 163 of 1847.)

From *J. Dunbar*, Esq., Commissioner of Dacca, to the Sudder Board of Revenue, Fort
William.

No. 20.

Gentlemen,

HEREWITH I have the honour to forward Mr. Price's report for the month of September last. Mr. Price states in a separate letter that we was unable to submit the report sooner, in consequence of having been engaged in a tour of inspection over the ryottee cultivation in various quarters. No. 84, dated
1 October 1847.

2d. It is very satisfactory to find, from what Mr. Price says, that the Patna seed is thriving so well on the light soils, and is so well thought of by the ryots. If we can but afford proof of its being a profitable crop, by even one good harvest, I apprehend we shall have more applications to take up the cultivation than we might find it convenient all at once to comply with.

I.

Bengal and
North Western
Provinces.

* Chur Bukhtabullee.

3d. From several conversations I have lately had with Mr. Price, I find that he has come to the conclusion that the soil upon the Toke farm is too stiff for the growth of good cotton; I have it therefore in view gradually to withdraw from that locality, and to transfer our experiments to places where experience leads Mr. Price to think we are likely to be more successful. With my sanction Mr. Price has already given up a portion of the land at Toke, and has engaged an area of about the same extent, on an old chur* (not liable to be carried away by the river), about eight miles below Dacca. As soon as the crop now on the ground at Toke can be gathered in, I would abandon that place altogether, bringing down the huts and out-offices at Bukhtabullee, which can be done at a trifling expense, the whole being of such materials as can be easily taken to pieces and put together again. I am disposed to think that the size of the experimental farm may also with advantage be reduced; 50 or 60 beegahs of good land, I think, would afford ample space in which to go on with mere experiments, while I am convinced that the shortest and surest method of solving the problem whether Eastern Bengal can raise a description of cotton in every way suited to the English market, is to have the superintendent traversing the country in every direction, and getting the ryots to lay down a few beegahs in cotton wherever he may see reason to think that it would thrive.

4th. Heretofore Mr. Price has been taught to believe that the success of his exertions was to be estimated mainly by the results of his experiments on the Toke farm; I would now have him direct his attention more particularly to the ryottee cultivation in various parts of the district. He has already got a footing in several places, and as the intentions of Government are now better and more generally understood, and Mr. Price himself well known, I think no difficulty need be apprehended in getting the ryots to enter into engagements whenever it may be deemed advisable to try the cultivation of cotton.

5th. Should your Board see no reason to question the correctness of my views, I solicit the sanction of Government to such a modification in the plan heretofore in use as I have just pointed out and recommended.

I have, &c.

(signed) J. Dunbar,

Commissioner's Office, Dacca Division, Commissioner of Rev.
6 November 1847.

(No. 84 of 1847.)

From J.O. Price, Esq., Government Cotton Planter, to J. Dunbar, Esq., Commissioner of Dacca Division, Dacca.

Sir,

I HAVE the honour to submit to you, for the information of the Honourable the Deputy Governor of Bengal, the monthly report of my proceedings for the month of September 1847.

In the early part of this month I again visited the several places on the Dullesary, at which I have tried ryottee cultivation with Patna seed, which continues to be very promising in every place where proper attention has been paid to it, and prevented from being injured by trespass by stock, to which there is too little attention paid in this part of India. On my return to the Government farm I next visited Burrybarree, on the Burrumpooter, at which place we have five beegahs of particularly fine young cotton, also of the Patna kind, and from thence I returned to the farm, where, much to my regret, I found the ryots that had taken advances for twenty beegahs of ryottee cultivation in Mymensing district, waiting my return to know what was to be done, as the cotton grown by them from Patna seed, which I had seen a short time before looking most healthy, was now withering away fast, and the leaves dropping off it, which on examination I found to be too true, and I am sorry to add, that eighteen beegahs of the same kind of cotton on the farm is now in the same state; it therefore appears that heavy stiff land is not suited for the growth of that kind of cotton, both of the places at which it has failed being of that description of land; but I am happy to add, that in a lighter description of soil it promises at present to become a very profitable crop. The ryots where it has succeeded say they never saw any cotton equal to it in this district, and numbers are now anxious to secure advances for May planting (which is the best season for planting cotton in this district, in my opinion, as the October crop only comes to perfection in the commencement of the rains, and therefore is little better than a lost crop). I am happy in mentioning this increased disposition in the natives to grow cotton, as it leads me to hope that, with the assistance of ryottee cultivation, they will soon be induced to grow cotton as a general crop on their own account, at least, in districts that have got lands suited for the growth of it.

In consequence of having been disappointed in the farm with Patna cotton seed, in addition to that of the American and Bourbon kinds that we have had in cultivation since the farm was settled, never having yet yielded half an average crop, I beg leave to state that I have thought it advisable to give up a portion of the one hundred and twenty-five beegahs of land we have in the Toke farm, and procure an equal quantity of land to that given up of chur land, in the southern part of the district (as it appears from several small experiments

experiments we have tried to be better suited for cotton cultivation than that to the northward), and establish a small farm there, which I will be able to do at a very trifling additional expense, if any, to Government, by removing some huts not now required at the Toke farm to the chur land, and the rent of the land I have given up to ryots will, I expect, be equal to that of about forty beegahs of chur land that I have been able to procure, a portion of which I have now commenced cultivating, and in April I purpose giving up the Toke farm entirely, and confining the Neej cultivation to a small chur farm, for experimentalising with the different kinds of cotton seed that we may be able to procure, and afterwards distributing the seed among the natives; by increasing the ryottee cultivation, I am of opinion it would be the means of inducing the ryots to turn their attention to the cultivation of cotton more generally, besides being the safer way for Government, as the ryots are bound by agreement to deliver me in good cotton the value of their advances. Hoping that my views on this subject may meet with the approbation of Government,

I have, &c.
(signed) *J. O. Price,*
Govt. Cotton Planter.

Dacca Govt. Farm,
1 October 1847.

(True copy.)
(signed) *R. Pereira,*
Officiating Assistant.

Commissioner's Office, Dacca Division,
Dacca, 6th Nov. 1847.

(No. 950.)

From *W. Grey*, Esq., Officiating Under Secretary to the Government of Bengal, to
Secretary Sudder Board of Revenue.

No. 21.

Sir,

I AM directed to acknowledge the receipt of your letter No. 373, of the 23d ultimo, with enclosures, and in reply, to state that the Deputy Governor approves of the recommendation therein conveyed for the abandonment of the cotton farm at Thoke. The Deputy Governor is likewise disposed to concur generally in the views expressed by the Commissioner in the concluding portion of para. 3 of his letter to the Board's address, with respect to the principle upon which the cultivation is to be carried on for the future.

Revenue.

I am instructed to add, that his Honor would be glad to learn the Board's opinion, founded upon a review of Mr. Price's proceedings, and the outlay which has attended them since he commenced his operations in the Dacca district, as to the prospect of any successful and profitable result being obtained from his experiments, and consequently the expediency of continuing them for any longer period.

The enclosures of your letter are returned, copies having being kept for record.

I have, &c.
(signed) *W. Grey,*
Fort William,
13 December 1847. Offg. Under Secy. to the Govt. of Bengal.

EXTRACT from the Proceedings of the Government of Bengal in the Revenue Department, under date 1 December 1847.

(No. 381.)

From the Secretary to the Sudder Board of Revenue to *F. J. Halliday*, Esq.,
Secretary to the Government of Bengal, Revenue Department, dated Fort
William, 26 November 1847.

No. 11.

Sir,

I AM directed by the Sudder Board of Revenue to request that you will submit, for the consideration of his Honor the Deputy Governor, the accompanying letter in original, No. 88, dated the 1st instant, being Mr. J. O. Price's report on the experimental cultivation of cotton for the month of October last.

Miss. Dept.
Present :
J. Lewis, Esq. and
E. M. Gordon, Esq.

I have, &c.
(signed) *Geo. Plowden*, Secretary.

I.

Bengal and
North Western
Provinces.

(No. 88 of 1847.)

No. 12.

From *J. O. Price*, Esq., Government Cotton Planter, Dacca, to *J. Dunbar*, Esq.,
Commissioner of Dacca Division.

Sir,

I HAVE the honour to submit to you, for the information of the Honourable the Deputy Governor of Bengal, the monthly report of my proceedings for the month of October.

The few coolies on the farm at Toke have been engaged all this month in cleaning the cotton field and picking cotton, when required, and the coolies on the chur land, in preparing land for planting, when the weather would permit of their doing so, the early part of the month having been anything but favourable for that purpose. I have now about eight biggahs planted, principally with Bourbon seed, which has vegetated well.

I have visited the several places at which the Patna seed has succeeded, and I have pleasure in stating that its present yielding and appearance fully bear me out in my anticipations, in my last report, that, to those who have land suited to its growth, it will prove a very profitable crop; at one place in particular I found it eight and ten feet high, and bearing until the weight of the bolls was nearly overcoming the strength of the plants.

Dacca Government Farm,
1 November 1847.

I have, &c.
(signed) *J. O. Price*,
Government Cotton Planter, Dacca.

Commissioner's Office, Dacca Division, Dacca,
12 November 1847.

(True copy.)
(signed) *R. Pereira*, Offg. Assist.

EXTRACT from the Proceedings of the Government of Bengal, in the Revenue Department, under date the 16th March 1848.

(No. 5.)

No. 8.

From the Secretary to the Sudder Board of Revenue to *F. J. Halliday*, Esq., Secretary to the Government of Bengal, Revenue Department, dated Fort William, 8 January 1848.

Miss. Dept.
Present:

J. Lewis, Esq. and
E. M. Gordon, Esq.

Sir,

I AM directed by the Sudder Board of Revenue to request that you will submit, for the consideration of his Honor the Deputy Governor, the accompanying letter, No. 190, dated the 27th ultimo, and its enclosure, from the Commissioner of Dacca, being Mr. *J. O. Price*'s report on the experimental cultivation of cotton, for the month of November last.

I have, &c.
(signed) *Geo. Plowden*, Secretary.

(No. 190 of 1847.)

No. 9.

From *J. Dunbar*, Esq., Commissioner of Dacca, to the Sudder Board of Revenue,
Fort William.

Gentlemen,

HEREWITH I have the honour to transmit Mr. Price's cotton report for the month of November 1847. It is chiefly occupied with an account of his visit to the Tipperah hills; but Mr. Price has altogether omitted to give any opinion as to the expediency and practicability of getting the hill people to take up the cultivation of any of the exotic cotton. His attention will be called to the omission.

Commissioner's Office, Dacca Division,
Dacca, 27 December 1847.

I have, &c.
(signed) *J. Dunbar*,
Commissioner of Revenue.

(No. 95 of 1847.)

From *J. O. Price*, Esq., Government Cotton Planter, Dacca, to *J. Dunbar*, Esq.,
Commissioner of Dacca Division.

Sir,

1 December 1847.

I HAVE the honour to submit to you, for the information of the Honourable the Deputy Governor of Bengal, the monthly report of my proceedings for the month of November.

From the 1st until the 15th instant, the coolies on the chur lands continued to be employed in preparing land, and planting it with Bourbon and American seed, by which time they had about 25 beegahs planted, and, as the season was getting late, I did not think it advisable to plant any more until the months of April and May; the coolies have therefore been engaged for the remainder of the month in making fences, and cleaning and supplying the land first planted. The few coolies on Toke farm continue to be employed, as stated in my last report.

On the 15th instant I left this district for the purpose of visiting the Tipperah hills, in the neighbourhood of Commillah, at which place I arrived on the 18th, and on the following day proceeded by elephant to visit some of the districts on the hills, where I was informed the natives cultivated cotton; but, from the natives I had with me as guides not being well acquainted with that part of the district, I was very unsuccessful the first day, but the second and third I was more fortunate, having been enabled to visit three of their small settlements, at each of which I found them engaged in picking their cotton, the crop of which is very deficient this year, having suffered much from the heavy rains in October, as also from the late rains this month. The system of cultivation pursued by the natives on the hills is very simple. That part of the country being overgrown with a small kind of bamboo, it is cut down in the months of February and March, and allowed to remain until dry, when it is burnt off the land, which leaves it quite clean and ready for planting, besides giving them the advantage of the ashes as manure; and, as soon as the rains commence, they open small holes with the hoe at irregular distances from each other, but generally from 12 to 18 inches apart, into which they drop a few cotton seeds, with the seed of any other mixed crop that they wish to cultivate with it, such as rice, chillies, &c., &c., and cover them lightly with mould. This is all the cultivation they give, unless the jungle has grown too quickly, in case of which it is simply cut down. From all the information I could obtain from them, I understand they get about five maunds of cotton to the beegah in a favourable season, in addition to which, their crops mixed with it is equal to about one maund of cotton. This should pay them well for their cultivation; but, unfortunately, they can only cultivate for one or two years in succession the same land. This appears to be occasioned by the quick descent of the hills, and the surface of the land being composed in a great measure of reddish sand, so that, when exposed to heavy rains, the surface is washed off, and only the red clay left, of which the strata immediately under the surface consists. They are, therefore, obliged to be constantly changing their place of abode, which must not only be a great inconvenience, but also a loss to them, although they do not complain of it as any particular hardship. The kind of cotton they plant is called the bogah: it is rather short in staple, but strong; and, from the large size of the bolls, they are enabled to pick it clean, which is a great matter, and very difficult to do with the small Bengallee kinds.

I have, &c.

(signed) *J. O. Price*,
Government Cotton Planter, Dacca.

EXTRACT from the Proceedings of the Government of Bengal, in the Revenue Department, under date the 2d February 1848.

(No. 35.)

From the Secretary to the Sudder Board of Revenue, to *F. J. Halliday*, Esq.,
Secretary to the Government of Bengal, Revenue Department.

No. 11.

Sir,

Fort William, 31 January 1848.

I AM directed by the Sudder Board of Revenue to request that you will submit, for the consideration of the Right Honourable the Governor of Bengal, the accompanying letter, No. 4, dated the 1st instant, from Mr. J. O. Price, being that gentleman's report on the experimental cultivation of cotton for the month of December last.

2d. The Commissioner hopes soon to submit the special report called for by Government orders of the 13th ultimo, No. 950.

I have, &c.

(signed) *Geo. Plowden*, Secretary.

Miss. Dept.

Present:

J. Lewis, Esq. and
E. M. Gordon, Esq.

I.

Bengal and
North Western
Provinces.

No. 12.

(No. 4).

From *J. O. Price*, Esq., Government Cotton Planter, to *J. Dunbar*, Esq., Commissioner
of Dacca.

Sir,

I HAVE the honour to submit to you, for the information of the Honourable the Deputy Governor of Bengal, the monthly report of my proceedings for the month of December.

2d. The coolies employed on the chur farm have been partly engaged this month in weeding and moulding, and supplying the young plants (which are now looking very healthy and in growth equal to any plants I ever saw in America of the same age); the remainder of the month they have been employed in making fences. Having lately visited the Toke farm, and found the cotton suffering much from the extreme stiffness of the land, so much so that on examination the roots appeared to be perfectly earth bound, and which I have no doubt was the cause of the cotton having the same unhealthy appearance at this season last year, when it should have been in full bearing; this evil we will not have to contend with on the chur land, which is of a free soil, and easily cultivated at all seasons of the year.

3d. In continuation of my remarks in my last month's report respecting Tipperah district, I beg leave to add that I would not recommend Government going into much expense this year in experimental cotton cultivation in that district; but, instead of which, to supply the Rajah with a few maunds of cotton seed of superior kinds to that now grown on the hills, and to have it introduced, through his interest, among the natives, which he was kind enough to say, some time ago, when spoken to on that subject, that he would have much pleasure in ordering to be done, by which means we would be enabled to judge, by January next, what inducement there was likely to be to introduce other kinds of seed and an improved system of cultivation into that district.

I have, &c.

Dacca Government Farm,
1 January 1848.(signed) *J. O. Price*,
Government Cotton Planter.Commissioner's Office, Dacca Division, Dacca,
18 January 1848.

EXTRACT from the Proceedings of the Government of Bengal, in the Revenue Department, under date 29 March 1848.

(No. 92.)

No. 17.

From the Secretary to the Sudder Board of Revenue to *F. J. Halliday*, Esq., Secretary to the Government of Bengal, Revenue Department, dated Fort William, 22 March 1848.

Sir,

Miss. Dept.
Present:
J. Lewis, Esq. and
E. M. Gordon, Esq.

I AM directed by the Sudder Board of Revenue to request that you will submit, for the information of the Right Honourable the Governor of Bengal, the accompanying letter, No. 40, dated 2d instant, and its enclosures, from the Commissioner of Dacca, being a report on Mr. Price's experimental cultivation of cotton for the month of January last.

I have, &c.

(signed) *Geo. Plowden*,
Secretary.

(No. 40.)

No. 18.

From *J. Dunbar*, Esq., Commissioner of Dacca, to the Sudder Board of Revenue, Fort William.

Gentlemen,

I HAVE the honour to transmit a copy of Mr. Price's report, No. 17, dated 1st ultimo, of his proceedings in regard to the cultivation of cotton for January last, which does not seem to call for any remarks.

I have, &c.

Commissioner's Office, Dacca Division,
Dacca, 2 March 1848.(signed) *J. Dunbar*,
Commissioner of Revenue.

(No. 17 of 1848.)

From *J. O. Price*, Esq., Government Cotton Planter, to *J. Dunbar*, Esq., Commissioner of Revenue, Dacca.

I.
Bengal and
North Western
Provinces.

Sir,

I HAVE the honour to submit to you, for the information of the Right Honourable the Governor-General of India, the monthly report of my proceedings for the month of January.

2. The employment of the coolies on the Chur farm has been the same this month as that of last, and the few coolies employed on Toke farm have been principally engaged in pulling down the houses there, and preparing everything for a total removal to Bucktabully Chur farm, so as to enable me to abandon that farm entirely next month.

Government Farm,

1 Feb. 1848.

(signed)

I have, &c.

J. O. Price, Govt. Cotton Planter,

Commissioner's Office, Dacca Division, Dacca,

2 March 1848.

EXTRACT from a General Letter from the Government of *Bengal* to the Honourable the Court of Directors, in the Revenue Department (No. 17 of 1848), dated the 8th October.

PARA. 25. Herewith are forwarded Mr. Price's Reports of Experimental Cotton Cultivation during the months of February, March, and April.*

15th or Dacca
Division.

25A. An outlay of upwards of 30,000 rupees has been incurred in carrying on the experimental culture of cotton, under the management of Mr. Price.

Experimental of
cotton cultivation
at Dacca.

26. Although the result has hitherto been unsuccessful and unprofitable, I was still desirous that the experiment should be continued for the present; it will, however, be confined to the Bourbon and Patna cotton, particularly the latter, the culture of which has been attended with favourable results.

27. Measures have been taken for supplying Mr. Price with fresh Bourbon and Patna cotton seed, and I have acceded to the Commissioner Mr. Dunbar's proposition for substituting quarterly for monthly reports.

EXTRACT from the Proceedings of the Government of Bengal in the Revenue Department, dated the 12th April 1848.

(No. 102.)

From the Secretary to the Sudder Board of Revenue to *F. J. Halliday*, Esquire, Secretary to the Government of Bengal, Revenue Department; dated Fort William, the 6th April 1848.

No. 3.

Sir,

I AM directed by the Sudder Board of Revenue to request that you will submit, for the consideration of the Right Honourable the Governor of Bengal, the accompanying letter (No. 21), dated the 1st ultimo, from Mr. J. O. Price, being that gentleman's report on the experimental cultivation of cotton for the month of February last.

Mis. Dept.
Present:
J. Lewis and
E. M. Gordon,
Esqrs.

I have &c.

Sudder Board of Revenue.

(signed)

G. Plowden, Secretary.

(No. 21 of 1848.)

No. 4.

From *J. O. Price*, Esquire, Government Cotton Planter, to *J. Dunbar*, Esquire, Commissioner of Dacca Division.

Sir,

I HAVE the honour to submit to you, for the information of the Right Honourable the Governor-general of India, the monthly report of my proceedings for the month of February.

2. I have been employed all this month in making arrangements for ryottee cultivation, and in removing the Toke establishment to Bucktabully Chur.

I have

* Revenue Proceedings: 12 April 1848, Nos. 3 & 4; 10 May 1848, Nos. 25 & 26; 7 June 1848, Nos. 31 & 32; 26 April 1848, Nos. 2 to 9.

I.

Bengal and
North Western
Provinces.

3. I have much pleasure in stating that the cotton planted early in November on the chur land continues to stand the dry weather well, and as it is now in a very healthy growing state, I am in great hopes it will succeed well, and most particularly so on account of almost any quantity of the same kind of chur land being procurable in this and the neighbouring districts. My proceedings on the chur land this month have been confined to breaking up some land with the plough for April and May sowing.

Government Farm, 1 March 1848.

I have, &c.
(signed) *J. O. Price,*
Government Cotton Planter.

Commissioner's Office, Dacca Division, Dacca,
23 March 1848.

(True copy.)
(signed) *R. Pereira,* Officiating Assistant.

No orders.

EXTRACT from the Proceedings of the Government of Bengal in the Revenue Department, dated the 10th May 1848.

No. 25.

(No. 127.)

From the Secretary to the Sudder Board of Revenue to *F. J. Hulliday*, Esquire, Secretary to the Government of Bengal, Revenue Department; dated Fort William, 1 May 1848.

Sir,

Mis. Dept.
Present:
J. Lewis and
E. M. Gordon,
Esqrs.

I AM directed by the Sudder Board of Revenue to request that you will submit, for the consideration and orders of the Right Honourable the Governor of Bengal, the accompanying letter (No. 27), dated the 1st ultimo, from Mr. *J. O. Price*, being that gentleman's report on the experimental cultivation of cotton for the month of March last.

Sudder Board of Revenue. I have, &c.
(signed) *G. Plowden,* Secretary.

No. 26.

(No. 27 of 1848.)

From *J. O. Price*, Esq., Government Cotton Planter, Dacca, to *J. Dunbar*, Esq., Commissioner of Revenue, 15th Division, Dacca.

Sir,

I HAVE the honour to submit to you, for the information of the Right Honourable the Governor-general of India, the monthly report of my proceedings for the month of March.

2. The coolies on the farm have been engaged this month in ploughing and preparing land for seed, and in hoeing and weeding the cotton planted in November, which is now in a very healthy state.

3. My proceedings with respect to the ryottee cultivation this month have been much of the same nature as that stated in my last report.

4. I beg leave to add that, in accordance with the conversation I had the honour of having with you a short time ago, respecting the reduction of the expenses attending the Neej cultivation as far as practicable, that I have dispensed with my sirkar's services, and will thereby only require one person who will act as assistant and writer. I also have returned the elephant to the depôt, as I found I did not require its services on the chur land.

Government Farm, 1 April 1848. I have, &c.
(signed) *J. O. Price,*
Government Cotton Planter.
Commissioner's Office, Dacca Division, Dacca,
11 April 1848.

(True copy.)
(signed) *R. Pereira,* Officiating Assistant.

No orders.

EXTRACT from the Proceedings of the Government of Bengal in the Revenue Department, dated 7 June 1848.

(No. 155.)

From the Secretary to the Sudder Board of Revenue to *F. J. Halliday*, Esq., Secretary to the Government of Bengal, Revenue Department; dated Fort William, 30th May 1848.

Sir,

I AM directed by the Sudder Board of Revenue to request that you will submit, for the consideration of the Right Honourable the Governor of Bengal, the accompanying letter (No. 102), dated the 17th instant, and its enclosure from the Commissioner of Dacca, the latter being Mr. J. O. Price's report on the experimental cultivation of cotton for the month of April last.

I.
Bengal and
North Western
Province.

No. 31.

Mis. Dept.
Present :
J. Lewis and
E. M. Gordon,
Esqrs.

Sudder Board of Revenue.

I have, &c.
(signed) *G. Plowden*, Secretary.

(No. 102 of 1848.)

From *J. Dunbar*, Esq., Commissioner of Dacca, to the Sudder Board of Revenue, Fort William.

No. 32.

Gentlemen,

I HAVE the honour to submit a copy of Mr. Price's report (No. 35), of the 30th ultimo, of his proceedings in regard to the cultivation of cotton in the month of April last, which does not seem to require any remarks.

2. Mr. Price's reports hereafter shall be furnished quarterly, commencing from the official year 1848-49.

Commissioner's Office, Dacca Division, Dacca,
17 May 1848.

I have, &c.
(signed) *J. Dunbar*,
Commissioner of Revenue.

(No. 35 of 1848.)

From *J. O. Price*, Esq., Government Cotton Planter, to *J. Dunbar*, Esq., Commissioner of Dacca Division.

Sir,

I HAVE the honour to submit to you, for the information of the Right Honourable the Governor of Bengal, the monthly report of my proceedings for the month of April.

2. The hot dry wind that has continued all this month, without any rain, has prevented my being able to plant. Although I have the greater part of the land prepared, there has therefore been no change in the employment of the coolies from that of the previous month.

3. The ryots who have taken advances, have also been engaged in cultivating their lands, and are now only waiting for seed and rain.

I have, &c.
(signed) *J. O. Price*,
Government Cotton Planter.

Government Farm, 30 April 1848.

EXTRACT from the Proceedings of the Government of Bengal in the Revenue Department, dated 26 April 1848.

(No. 51.)

No. 1.

From the Sudder Board of Revenue to *F. J. Halliday*, Esq., Secretary to the Government of Bengal, Revenue Department; dated Fort William, 15th February 1848.

Sir,

WITH reference to Officiating Under Secretary Mr. Grey's letter, No. 950, dated the 13th December last, I am directed by the Sudder Board of Revenue to request that you will lay before the Right Honourable the Governor of Bengal the enclosed correspondence* with the Commissioner of Dacca, relative to the experimental culture of cotton under the management of Mr. J. O. Price.

Mis. Dept.
Present :
J. Lewis and
E. M. Gordon,
Esqrs.

2. It

* Board to Commissioner, 146, of 24 December 1847: Commissioner to Board, No. 15, of 29 ultimo and Enclosure (in original).

I.

Bengal and
North Western
Provinces.

2. It will be seen that up to the close of the past year, nearly 30,000 rupees had been expended upon the experiment, and though no decidedly successful and profitable result has yet been obtained, the Commissioner is far from thinking that the money has been uselessly expended, and is decidedly of opinion that it is advisable to persevere in the experiment. The Patna cotton, he says, is likely to do well in the stiff soils, in the northern parts of the district, and he is particularly anxious to try the Bourbon cotton on an extended scale this year in the lighter soils in the lower part of the district.

3. The Board are scarcely in a position to judge accurately of the value of these experimental proceedings; but they think that, having gone on so long, the expense, about 500 rupees per mensem, may very well be incurred a little longer, and that the Commissioner, Mr. Dunbar, who has paid great attention to the subject and evinced great interest in the proceedings throughout, may be indulged in the way he proposes.

4. If the Right Honourable the Governor should concur in this view it will be necessary to take immediate measures for supplying Mr. Price with 30 or 40 maunds of Bourbon and 25 maunds of Patna seed; the best time for putting the seed into the ground being May and June.

5. The Board would suggest that the Commissioner be informed of the opinions passed by the London merchants on the specimens of cotton sent to England some time back, if any communication on the subject has been received from the Honourable Court. The Commissioner's suggestion of substituting quarterly for monthly reports is also, they think, worthy of adoption.

I have, &c.
(signed) *G. Plowden*,
Secretary.

No. 2.

(No. 146.)

From the Secretary Sudder Board of Revenue to the Commissioner of Dacca; dated Fort William, 24 December 1847.

Sir,

Miscellaneous.
Present:
J. Lewis and
E. M. Gordon,
Esqrs.

WITH reference to your letter, No. 163, dated the 6th ultimo, submitting the report of Mr. Price's proceedings in September last, I am directed by the Sudder Board of Revenue to transmit the annexed copy of the orders of Government, dated the 13th instant, No. 950, and to request that you will furnish them with a memorandum of the cost which has been incurred from the beginning of the experiment to cultivate cotton, distinguishing Mr. Price's allowances from the other charges, and distributing the latter under convenient heads, as well as exhibiting separately the expenses incurred on the farm, and on the ryottee mode of cultivation. The Board will also expect to receive your opinion on the general question of the expediency of continuing the experiment any longer or not, with the reasons on which your opinion is founded.

I have, &c.
(signed) *Geo. Plowden*,
Secretary.

(No. 15 of 1848.)

From *J. Dunbar*, Esq., Commissioner of Dacca, to the Sudder Board of Revenue, Fort William.

Gentlemen,

I HAVE the honour to submit a memorandum of the nature called for in your Board's letter, No. 146, dated the 24th ultimo, showing the entire outlay which has been incurred in carrying out the experiment to cultivate cotton in this district, from the period of Mr. Price's first appointment, up to the close of 1847.

2. The memorandum was drawn up by Mr. Price, and tested by the records in this office and in that of the Collector of Dacca; at first sight I was inclined to return it, as being too little in detail, and not exhibiting separately the expenses incurred on the farm at Toke, but upon further consideration this seemed unnecessary, as it is not probable that your Board are desirous of tracing the items of expenditure in all their varieties throughout the entire period embraced by the statement. It will suffice, I suppose, to state that for the years 1843 and 1844 no expenses are exhibited in columns three and four, because Mr. Price was then engaged in travelling about the country, and acquiring that knowledge of the seasons and the soil, without which he could not venture to commence his operations with any well grounded hope of success, and that the charges on account of the Neerj cultivation, in column three, consist of the wages of the coolies, and of the fixed establishment; the

the hire of boats, repairs of huts, feeding elephants, and other contingent expenses of the amount exhibited in column four, a portion is irretrievably gone; for some part of it returns have yet to be made by the ryotts, to whom advances have been made.

3. The total amount of expenditure up to the close of the past year falls very little short of 30,000 rupees. Viewed in connexion with an experiment which had resulted in complete failure this would be a large sum, but although we certainly have had little to show, in the way of produce, I am far from thinking that the money has been uselessly thrown away. The experiment, like many similar first attempts, has had a variety of difficulties to contend with; much of the seed sent up from Calcutta turned out bad and did not vegetate; caterpillars and worms attacked the plants in various stages, and committed great havoc among them, and in particular it has been found that the soil at Toke is unsuited to the growth of the exotic cottons; still Mr. Price's labours have not been without their useful results; we have learned from them, and I state this after much conversation with Mr. Price upon the subject, that the Patna cotton is likely to do well in the stiff soils in the northern parts of the district, but that none of the foreign cottons which we have yet had an opportunity of trying are likely to thrive there, or indeed anywhere else, with exception to the Patna, which we think will give abundant returns, if grown on the lighter soils in the lower parts of the district. In proof of this statement, I may observe, that a little plantation of Patna cotton at an indigo factory, to the eastward of Toke, bore produce to such an extent during the past season, that the gentleman in charge expects to be able, with the seed, to lay down about 50 beegahs of it for Mr. Price this year; while a small quantity of Bourbon seed, sown in Mr. Forde's garden at Foolbariah, about 15 miles to the west of Dacca, has during four successive seasons given heavy crops of cotton, the quality of which Mr. Price affirms to be equal, if not superior, to any that he had ever seen in America.

4. I am decidedly of opinion that it is advisable to persevere in the experiment. I am the more anxious that we should go on, as the removal of the farm from Toke to Bukhtabullee will enable me personally to give that attention to Mr. Price's proceedings, which it was out of my power to bestow when he was so far away. I would not have it to be understood that I consider myself capable of suggesting improvements upon Mr. Price's mode of cultivation, but I think the frequent opportunities I shall now have of seeing him and the farm, and the assistance which, from my position, I shall be able to render him in his dealings with the planters, zemindars, and ryotts, in this neighbourhood, will be of much advantage. Mr. Price is a hardworking man, and no doubt a good practical planter, well fitted to superintend the cotton cultivation, if once fairly introduced and established; but it is my duty to state that I do not think him qualified to carry out, to its fullest extent, the object which Government had in view when the present experiment was first resolved on. The chances of success would surely have been greater had the conduct of the experiment been entrusted to a man of scientific acquirements. Mr. Price's experiments do not appear to me to proceed upon any previously arranged system—they are desultory, and unconnected, and as far as I can judge from his reports and conversation, not always regulated by the experience which it is to be supposed he must be acquiring during their progress. A series of experiments having for their object the introduction of a new cultivation, in a tract of country comprising a variety of soils, can scarcely, I apprehend, be prosecuted efficaciously without some measure of botanical and geological knowledge on the part of the person appointed to conduct them.

5. Mr. Price has come to the conclusion, that the best time for putting the seed into the ground is May and June. I am particularly anxious to try the Bourbon cotton on an extended scale this year; I have therefore urgently to request that measures may be immediately taken for procuring and sending up within the next two or three months a large supply of the best and freshest Bourbon seed which can be had. A further supply of the Patna seed is also necessary. Since I began this report, a letter has come in from Mr. Price on this subject; he asks for 15 maunds of Bourbon and 25 maunds of Patna seed. His estimate, I think, is too low; I should like to have 30 or 40 maunds of the former, if it can be got, my object being to get the ryotts in the vicinity of Foolbareeah, where the soil seems peculiarly favourable, to take up the cultivation to a considerable extent. I have already intimated, that I think it better to reduce the Neej cultivation.

6. It has occurred to me that every purpose that Government or your Board can have in view, would be answered by the submission of quarterly reports from Mr. Price; a report embracing a period of three months would usually have something worthy of note to record; but your Board must have observed, that in giving an account of his proceedings every month, Mr. Price, thinking it absolutely necessary to write something, has been in the habit of entering into details of no real interest.

7. It would be satisfactory, both to me and to Mr. Price, to know what has been thought by the London merchants of the specimens of cotton grown in this district, sent home some time back; should any communication have been received upon the subject from the Honourable Court of Directors, I hope to be favoured with a copy of it.

I have, &c.

(signed) J. Dunbar,

Commissioner's Office, Dacca Division, Dacca,
29 January 1848.

Commissioner of Revenue.

I.
Bengal and
North Western
Provinces.

MEMORANDUM of the Expenses incurred since the Commencement of the Government Experimental Cotton Cultivation, up to the end of December 1847.

1. YEAR.	2. Mr. Price's Allowance.	3. Neej Cotton Cultivation, including every Charge connected with the Farm as shown in the Monthly Bills.	4. Ryottee Cultivation, including every Charge connected with the Farm as shown in the Monthly Bills.	5. Contingencies.	6. TOTAL.
	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>
1843 - - -	1,498 - -	- - -	- - -	435 4 -	1,933 4 -
1844 - - -	5,220 - -	- - -	- - -	- - -	5,220 - -
1845 - - -	5,400 - -	1,630 2 -	700 - -	- - -	7,730 2 -
1846 - - -	5,400 - -	1,992 12 -	24 - -	- - -	7,416 12 -
1847 - - -	5,400 - -	1,910 13 8	150 - -	- - -	7,460 13 8
TOTAL - -	22,918 - -	5,533 11 8	874 - -	435 4 -	29,760 15 8

REMARKS. —The amount charged under Contingencies is for the expense of a dawk allowed me to reach Dacca, and an allowance of 300 rupees to enable me to find means of travelling when employed examining and reporting on the soils of this and the neighbouring districts.

Dacca Government Farm,
20 January 1848.

(signed) *J. O. Price,*
Govt. Cotton Planter.

Commissioner's Office, Dacca Division, Dacca,
29 January 1848.

(signed) *R. Pereira,*
Officiating Assistant.

No. 3.

(No. 235.)

From *W. Seton Karr*, Esq., Under Secretary to the Government of Bengal,
to Secretary Sudder Board of Revenue.

Sir,

I AM directed to acknowledge the receipt of your letter, No. 51, dated the 15th ultimo, with its enclosures, relative to the experimental cotton culture under the management of Mr. J. O. Price, and to inform you in reply, that notwithstanding the unsuccessful and unprofitable result hitherto, his Lordship would wish the experiment to be continued for the present, but to be confined to Patna and Bourbon cotton.

From the favourable results hitherto attending the Patna cotton, his Lordship desires that the greater proportion of the future experiments may be made with that description of material.

The original enclosures received with your letter are herewith returned, copies having been kept for record.

I have, &c.

Fort William,
29 March 1848.

(signed) *W. Seton Karr,*
Under Secretary to the Government of Bengal.

No. 4.

(No. 118.)

From the Secretary to the Sudder Board of Revenue to *F. J. Halliday*, Esq.,
Secretary to the Government of Bengal, Revenue Department; dated Fort William, 25 April 1848.

Sir,

WITH reference to Under Secretary Mr. Seton Karr's letter of the 29th ultimo, No. 235, I am directed by the Sudder Board of Revenue to request that you will place before the Right Honourable the Governor of Bengal the enclosed letter from the Commissioner of Dacca, dated the 14th instant, No. 63, inquiring whether orders have been issued for supplying him with Bourbon and Patna cotton

Mis Dept.
Present:
J. Lewis and
E. M. Gordon,
Esqrs.

cotton seed, and, if so, when he may expect to receive it; and requesting the Board to bring again to his Lordship's notice his suggestion for the substitution of quarterly for monthly reports of progress.

I have, &c.
(signed) *Geo. Plowden*,
Secretary.

P.S.—Please to return the enclosure.

I.
Bengal and
North Western
Provinces.

(No. 63 of 1848.)

From *J. Dunbar*, Esq., Commissioner of Dacca, to the Sudder Board of Revenue,
Fort William.

No. 5.
Enclosure.

Gentlemen,

I HAVE the honour to acknowledge the receipt of your Board's proceedings, No. 48, dated the 6th instant, with enclosures, relative to the experimental cultivation of cotton in this district.

2. I have to request that your Board will be good enough to inform me whether the necessary instructions have been issued for a further supply of Bourbon and Patna cotton seed, and, if so, when I may expect to receive it.

3. The Right Honourable the Governor not having passed any orders in regard to the substitution of quarterly for monthly reports, perhaps your Board will take an early opportunity of bringing the matter to his Lordship's notice again.

Commissioner's Office, Dacca Division,
Dacca, 14 April 1848.

I am, &c.
(signed) *J. Dunbar*,
Commissioner of Revenue.

(No. 80.)

From *W. Seton Karr*, Esq., Under Secretary to the Government of Bengal, to the Secretary to the Government of Fort St. George.

No. 6.

Sir,

I AM directed by the Right Honourable the Governor of Bengal to request that you will, with the permission of the Right Honourable the Governor in Council of Fort St. George, instruct the Superintendent of Cotton Plantations at Coimbatore to send 20 maunds of acclimated Bourbon cotton seed to the address of the Superintendent of Marine at Calcutta by the earliest opportunity.

I have, &c.
(signed) *W. Seton Karr*,
Fort William, 26 April 1848. Under Secretary to the Government of Bengal.

(No. 314.)

From *W. Seton Karr*, Esq., Under Secretary to the Government of Bengal, to Superintendent of Marine; dated 26 April 1848.

No. 7.

Sir,

I AM directed to forward the accompanying copy of a letter this day addressed to the Madras Government, and to request that you will forward the cotton seed referred to therein immediately on its arrival to Mr. J. O. Price, cotton planter at Dacca.

I have, &c.
(signed) *W. Seton Karr*,
Fort William, 26 April 1848. Under Secretary to the Government of Bengal.

I.
Bengal and
North Western
Provinces.

No. 8.

(No. 78.)

From *W. Seton Karr*, Esq., Under Secretary to the Government of Bengal,
to Commissioner of Patna.

Sir,

I AM directed to request that you will adopt immediate measures to procure 30 maunds of indigenous cotton seed of the description furnished by your predecessor in July 1846, and dispatch the same to the Commissioner of Dacca, to whom a copy of this letter will be furnished.

Fort William,
26 April 1848.

I have, &c.
(signed) *W. Seton Karr*,
Under Secretary to the Government of Bengal.

(No. 79.)

COPY forwarded to the Commissioner of Dacca for his Information.

No. 9.

(No. 313.)

From *W. Seton Karr*, Esq., Under Secretary to the Government of Bengal, to
Secretary Sudder Board of Revenue.

Sir,

I AM directed by the Right Honourable the Governor of Bengal to acknowledge the receipt of your letter, No. 118, of the 25th instant, with enclosure, and to inform you in reply, that his Lordship accedes to the Commissioner of Dacca's proposition that quarterly instead of monthly reports of Mr. Price's proceedings should be forwarded to Government.

The necessary instructions have been addressed to the Commissioner of Patna to forward 30 maunds of Patna cotton seed, and to the authorities at Madras for 20 maunds of the Bourbon kinds, such being, in his Lordship's opinion, the proportion which the two varieties should bear to each other in the next experiments.

The original enclosure of your letter is herewith returned, a copy having been kept for record.

Fort William,
26 April 1848.

I have, &c.
(signed) *W. Seton Karr*,
Under Secretary to the Government of Bengal.

EXTRACT Revenue Letter from Bengal, dated 6 February (No. 6) 1849.

38. ANNEXED will be found a report from Mr. J. O. Price in the experimental cotton cultivation for the first quarter of 1848-49.*

EXTRACT from the Proceedings of the Government of Bengal in the Revenue Department, dated 20 September 1848.

No. 9.

(No. 259.)

From the Secretary to the Sudder Board of Revenue to *F. J. Halliday*, Esq.,
Secretary to the Government of Bengal, Revenue Department; dated Fort
William, 12 September 1848.

Sir,

I AM directed by the Sudder Board of Revenue to request that you will submit, for the consideration of the Right Honourable the Governor of Bengal, the accompanying letter, No. 168, dated the 26th ultimo, and its enclosure, from the Commissioner of Dacca, being Mr. J. O. Price's report on the experimental cultivation of cotton for the first quarter of 1848-49.

Mis Dept.
Present:
J. Lewis and
E. M. Gordon,
Esqrs.

Sudder Board of Revenue.

I have, &c.
(signed) *G. W. Plowden*,
Secretary.

* Quarterly Report on the cotton cultivation at Dacca; R. P. 20 September 1848, Nos. 9 & 10.

(No. 168 of 1848.)

From *J. Dunbar*, Esq., Commissioner of Dacca, to the Sudder Board of Revenue,
Fort William.

Gentlemen,

IN transmitting the accompanying copy of Mr. Price's report, No. 57, dated the 1st instant, of his proceedings in regard to the cultivation of cotton during the first quarter of 1848-49, I have the honour to inform your Board that that gentleman having attended my office on business yesterday, I am happy to learn from him that much of the more advanced plant on the farm is looking remarkably well, notwithstanding that the water lay upon the lands to the depth of a foot or more for some time. It is satisfactory to know that it is hardy enough to survive so severe a trial.

Commissioner's Office, Dacca Division,
Dacca, 26 August 1848.

I have, &c.
(signed) *J. Dunbar*,
Commissioner of Revenue.

I.
Bengal and
North Western
Provinces.

No. 10.

(No. 57 of 1848.)

From *J. O. Price*, Esq., Government Cotton Planter, Dacca, to *J. Dunbar*, Esq.,
Commissioner of Dacca Division.

Sir,

THREE months having now elapsed since my last report, I beg leave to submit to you, for the information of Government, my proceedings from the 1st of May to the 31st of July.

2. Not having been favoured with any rain until the 11th of May, the coolies in the farm continued to be employed until that time in preparing land for seed, but having had fine rains from the above date, they were engaged the remainder of the month in planting Bourbon seed, and also in planting plantain suckers round the farm as a shelter to the young cotton from high winds. The ryots who have taken advances for the small ryottee cultivation we have on hand at present, were also employed nearly as above stated. This para. refers to our proceedings during the month of May.

3. The seed planted last month having vegetated well, and its growth having been very quick, I found it necessary in the early part of this month to weed and mould round it, so as to support it, the heavy rains having washed away the soil from the roots of the young plants; after finishing which the coolies were employed the remaining part of the month in weeding and moulding the November plant, which at that time was very promising, and although it had to contend with a continuation of heavy rains with little or no sunshine, still it retained a fine healthy appearance. The ryottee lands that were planted last month and the early part of this, have vegetated well. I have been anxiously expecting the arrival of the Bourbon and Patna seed. This para. refers to our proceedings for the month of June.

4. This month commenced with the same unfavourable weather that we had during the last, and the leaf of the young plants began to lose the healthy colour it had retained until that time. This we could not expect to have been otherwise, from the saturated state the land was in from the incessant rains we have had; so much so, that cultivation had become a very difficult matter to effect, and on the 13th we were obliged to stop cultivation altogether, not only on account of the state of the lands, but also from the threatening state of the river, which I am sorry to have to add increased every day until the 21st, by which time there was better than a foot of water all over the farm, and remained so, more or less, until the 25th, by which date the inundation had totally subsided from the farm lands. In consequence of the young plant having been under water we will lose the greater part of it, and the lands will consequently have to be replanted as soon as the new seed arrives, and the weather will permit of our doing so; but I am happy in being able to state that the more forward plant will still do well, should we have any favourable weather in the ensuing month. The ryottee cultivation will all have to be replanted, having also been destroyed by the inundation. This para. refers to our proceedings for the month of July.

5. During the height of the inundation I visited several parts of the district best suited for the growth of cotton, for the purpose of seeing how the lands there were affected by the rise of the rivers, when I found, as I had anticipated, almost every biggah of land that could be called chur land (wherever I went) under water, which afforded me the satisfaction of knowing that the land on which the Government farm is established is as high, if not higher, than the greater part of the chur land in this district. The present inundation, although an injury to us at present, I hope will ultimately be of much advantage to the farm, and the other lands that we may require for ryottee cultivation, from the benefit that they will derive from the deposit lately left on them. It is also a satisfaction to know that so high an inundation seldom takes place; indeed, I have been respectably informed that there has not been one so high since 1833; but I am at present of opinion, that if an equally high inundation took place every fourth or fifth year, it would be a benefit to us instead of injury, as chur lands generally contain a considerable portion of sand, and if constantly kept in cultivation would require to be assisted, either by an inundation or otherwise; so that what we now look upon as an evil, I trust may prove to be of service. I am in great hopes that the supply of cotton seed may arrive in all this month, so that we may be enabled to make early arrangements for October sowings; as we now see, from

I.
Bengal and
North Western
Provinces.

experience, that May and June sowings will not do on the chur land, on account of the plant not having sufficient time to attain either size or strength to survive through a long inundation, such as we have lately experienced

I have, &c.

(signed)

J. O. Price,

Government Cotton Planter.

Dacca Government Farm,

1 August 1848.

Commissioner's Office, Dacca Division,

Dacca, 26 August 1848.

(No. 5, D.)

EXTRACT from a General Letter from the Government of Bengal to the Honourable the Court of Directors, in the Revenue Department (No. 15 of 1849); dated 17 April.

15th, or Dacca
Division.

Application from
Mr. Price for four
churkas.

26. LORD DALHOUSIE refused compliance with an application submitted by Mr. Price for four churkas for cleaning cotton, as the state of the plantation was not such as to justify the proposed expense.*

Report on the
cotton cultivation
at Dacca.

28. Annexed will be found a report from Mr. Price for the quarter ending the 31st October last, on the cotton cultivation at Dacca.†

(No. 5, D.)

EXTRACT from the Proceedings of the Government of Bengal, in the Revenue Department; dated 13 September 1848.

No. 6.

(No. 216.)

From the Secretary to the Sudder Board of Revenue to *F. J. Halliday, Esq.*, Secretary to the Government of Bengal, Revenue Department; dated Fort William, 24 July 1848.

Sir,

Mrs. Dept.
Present :
J. Lewis and
E. M. Gordon,
Esqrs.

I AM directed by the Sudder Board of Revenue to request that you will submit for the favourable consideration of the Right Honourable the Governor of Bengal, the accompanying letter, No. 140, dated the 8th instant, and its enclosure, from the Commissioner of Dacca, soliciting that Mr. J. O. Price may be supplied with four churkas for the cleaning of cotton, such as are now being manufactured at the Calcutta Mint, under the superintendence of Mr. Mather.

I have, &c.

(signed)

G. Plowden,

Secretary.

Sudder Board of Revenue.

No. 7.

(No. 140 of 1848.)

From *J. Dunbar, Esq.*, Commissioner of Dacca, to the Sudder Board of Revenue, Fort William.

Gentlemen,

I HAVE the honour to lay before your Board copy of a communication, No. 51, dated the 1st instant, from Mr. J. O. Price, Government cotton planter, requesting to be supplied with four churkas for cleaning cotton, such as those now being manufactured at the Calcutta Mint, under the supervision of Mr. Mather.

2. As a good description of churka for cleaning cotton is particularly needed in the present experiment conducted in this district, I shall feel obliged by your submitting the application for the favourable consideration and orders of Government.

I have, &c.

(signed)

J. Dunbar,

Commissioner of Revenue.

Commissioner's Office, Dacca Division,
Dacca, 8 July 1848.

* Revenue Proceedings, 13 September 1848, Nos. 6 to 9.

† Revenue Proceedings, 13 December 1848, No. 10.

(No. 51 of 1848.)

From Government Cotton Planter, Dacca, to *J. Dunbar*, Esq., Commissioner of Dacca Division.

No. 8.

Sir,

I OBSERVE in a report of the Agricultural and Horticultural Society that a Mr. Mather has been deputed by the Government of the North West Provinces to superintend the manufacture of a number of churkas at the Mint of an improved kind; and as we are sadly in want of something of that kind here, on account of the great expense attending the cleaning of cotton by the small native churka of this district, I beg leave to request that you will use your interest in securing four of them, if possible, for the use of the experiment in this district, or a fewer number if that number is not procurable at present.

I have, &c.

(signed) *J. O. Price*,
Government Cotton Planter.

Dacca Government Farm,
1 July 1848.

(True copy.)

(signed) *R. Pereira*, Assistant.

Commissioner's Office, Dacca Division,
Dacca, 8 July 1848.

(No. 714.)

No. 9.

From the Under Secretary to the Government of Bengal to Secretary Sudder Board of Revenue; dated Fort William, 12 September 1848.

Sir,

I AM directed to acknowledge the receipt of your letter, No. 216, dated the 24th July last, submitting an application from Mr. J. O. Price, for four churkas for cleaning cotton, and to inform you that his Lordship is of opinion that the state of the plantation is not such as to justify the proposed expense.

Revenue.

The original enclosure herewith returned, copies having been kept for record.

I have, &c.

(signed) *W. Seton Karr*,
Under Secretary to the Government of Bengal.

EXTRACT from the Proceedings of the Government of Bengal, in the Revenue Department; dated 13 December 1848.

(No. 223 of 1848.)

No. 10.

From *J. Dunbar*, Esq., Commissioner of Revenue, 15th Division, Dacca, to the Sudder Board of Revenue, Fort William.

Gentlemen,

I HAVE the honour to transmit a copy of Mr. Price's report, No. 76, dated the 18th instant, of his proceedings in regard to the cultivation of cotton during the second quarter of 1848-49, which does not seem to require any remarks.

I have, &c.

(signed) *J. Dunbar*,
Commissioner of Revenue.

Commissioner's Office, Dacca Division,
Dacca, 21 November 1848.

(No. 76 of 1848.)

From *J. O. Price*, Esq., Government Cotton Planter, to *J. Dunbar*, Esq., Commissioner of Dacca Division.

Sir,

I HAVE the honour to submit for the information of Government the quarterly report of my proceedings, from the 1st of August to the 31st of October.

2. During all the month of August the inundation continued so very high, that scarcely any cultivation could be effected, either in neej cultivation or otherwise.

3. The inundation having receded very considerably in the early part of September, the coolies were consequently employed in cleaning and moulding the cotton field, making drains, and carrying seetee from Suttoollah factory for the use of the farm; but the inundation again increased to so great a height, that by the 15th we were again obliged to stop

I.
Bengal and
North Western
Provinces.

cultivation of every kind, for the greater part of the remainder of the month. During the whole of this month, I was busily engaged in visiting the different localities that I thought best suited for the cultivation of cotton, and in making advances to the ryots for the cultivation of the same.

4. The coolies on the farm have been busily engaged from the 1st of October, in preparing land and planting cotton seed of different kinds, a great part of which has already vegetated well, and is looking very healthy. I have been anxiously occupied all this month, not only in making advances, but also in superintending the ryottee cultivation, the greater part of which is in a very forward state at present; and as I have not made advances on any but choice lands (which, including the farm, will amount to better than 500 biggahs), I trust, therefore, that we may be able to realise the wish of Government.

5. I embrace this opportunity of mentioning how very much I was disappointed at hearing of the very low prices at which the samples of cottons sent home were valued in London, but particularly so, that of the American and Bourbon; as a gentleman in Dacca sent to Liverpool three small samples which I supplied him with, from the same cotton, all of which were valued as follows: Bourbon 6*d.*, American 5½*d.* Ditto native 5*d.* ditto. I am at a loss to account for so great a difference in the two valuations of the same article, unless that which was valued in London had got damaged in some way.

Dacca Government Farm,
18 November 1848.

I have, &c.
(signed) *J. O. Price*,
Government Cotton Planter.

(True copy.)

(signed) *R. Pereira*, Assistant.
Commissioner's Office, Dacca Division,
Dacca, 21 November 1848.

(No. 355.)

SUBMITTED for the information of the Honourable the Deputy-Governor of Bengal, by direction of the Sudder Board of Revenue.

(signed) *G. Plowden*, Secretary.
Fort William, 28 November 1848.

EXTRACT from a General Letter from the Government of Bengal to the Honourable the Court of Directors in the Revenue Department (No. 19 of 1849), dated 9th July.

Quarterly report
on the cotton cul-
tivation at Dacca.

33. ANNEXED will be found Mr. Price's report on the experimental cotton cultivation for the third quarter of 1848-49. The report is, on the whole, of a favourable character.*

EXTRACT from the Proceedings of the Government of Bengal in the Revenue Department, under date 8 March 1849.

No. 40.

(No. 22 of 1849.)

From *J. Dunbar*, Esq., Commissioner of Revenue for the Division of Dacca, to the Sudder Board of Revenue, Fort William.

Gentlemen,

I HAVE the honour to transmit a copy of Mr. Price's report, No. 8, dated the 1st instant, of his proceedings in regard to the cultivation of cotton during the third quarter of 1848-49, and to state that, when that gentleman waited upon me a few days ago, he gave me to understand that the cotton prospects had never, since the commencement of the experimental cultivation, been so favourable as they are now.

I have, &c.
(signed) *J. Dunbar*,
Commissioner of Revenue.
Commissioner's Office, Dacca Division,
Dacca, 12 February 1849.

(No. 8 of 1849.)

From *J. O. Price*, Esq., Government Cotton Planter, to *J. Dunbar*, Esq., Commissioner of Dacca Division.I.
Bengal and
North Western
Provinces.

Sir,

I HAVE the honour to submit to you, for the information of Government, the quarterly report of my proceedings from the 1st of November to the 31st of January.

2. Early in the month of November I finished planting on the farm the following kinds of cotton seed, Bourbon, American, Patna, fine Dacca, and a small quantity of the Tipperah Hill cotton, and commenced giving light mould to the first planted part of it, which is at present looking very healthy. I also, in the early part of the month, finished making advances for the ryottee cultivation, which the number of holidays and sickness among the natives had prevented my being able to make in the preceding month. The remainder of the month I continued engaged in visiting the several places at which we have cultivation, without which, and even with that, it is difficult to get the ryots to cultivate cotton land as they should do. This want of attention in the natives to cultivation appears to arise from the common crops of this country requiring so little attention after the seed is planted.

3. The weather during the greater part of December having continued very mild, was very beneficial to the young plants, having increased their growth so much as to give at least the early planted part of it sufficient strength to contend with the cold nights of the then coming month. During this month I again visited the whole of the ryottee cultivation, and also employed my assistant in the same way, as the cultivation is very much scattered over the district; the early planted fields I found looking particularly well, and also that which was planted later looking healthy, with exception of that at Gundrubpore Chur, at which place the Patna seed did not vegetate well, and will require to be partially replanted as soon as the nights become warmer, during this month. The first planted field on the farm, which stood the inundation so well, yielded about 10 maunds of cotton, but not more than one-fourth of the bolls opened, occasioned, I suppose, by the coldness of the nights; the leaf and bolls are now falling off, and new foliage coming on the trees.

4. The month of January has been much colder, and particularly the nights, than that of the preceding month, which has checked the growth of the young plants at all the places I have visited this month, and in some degree changed the healthy appearance it previously had; but this, of course, will soon disappear when the nights become warmer. The fine rain we had on the 19th was much wanted, and has been of much benefit to the cultivation generally.

5. I have planted adjacent to the bungalow on the farm a few small beds of the different kinds of cotton seed we have, for the purpose of again trying the crossing system, in hopes it may succeed better than that which I tried at Toke on the red soil, at which place the seed obtained from the flowers that had been crossed vegetated; but the seed obtained again from that plant I found, on examination, was perfectly hollow, without any germinating quality whatever, although the outward appearance of the seed was quite perfect.

I have, &c.
(signed) *J. O. Price*,
Government Cotton Planter.

Dacca Government Farm,
1 February 1849.

(True copy.)
(signed) *R. Pereira*, Assistant.

Commissioner's Office, Dacca Division,
Dacca, 12 February 1849.

(No. 59.)

SUBMITTED for the information of the Honourable the Deputy Governor of Bengal.

By direction of the Sudder Board of Revenue,

Fort William,
27 February 1849.

(signed) *G. Plowden*,
Secretary.

EXTRACT from a General Letter from the Government of Bengal to the Honourable the Court of Directors in the Revenue Department (No. 28 of 1849), dated 8 October.

45. ANNEXED will be found Mr. Price's report on the experimental cotton cultivation at Dacca, for the fourth quarter of 1848-49. Mr. Price reports favourably of the state of the farm at Toke, but mentions that the ryottee cultivation had suffered much from hailstorms during the month of March.*

Report on the
cotton cultivation
at Dacca.

* Revenue Proceedings, 6 June 1849, No. 8.

I.

Bengal and
North Western
Provinces.

No. 8.

EXTRACT from the Proceedings of the Government of Bengal, in the Revenue Department,
under date 6 June 1849.

(No. 116 of 1849.)

From *C. Tottenham, Esq.*, in charge of the Office of Commissioner of Revenue, Dacca, to
the Sudder Board of Revenue, Fort William.

Gentlemen,

I HAVE the honour to transmit a copy of Mr. Price's report, dated the 1st instant, No. 25,
of his proceedings in regard to the cultivation of cotton in the fourth quarter of 1848-49,
which does not seem to require any remarks.

I have, &c.

(signed) *C. Tottenham,*

In charge of the Office of Commissioner of Revenue.

Commissioner's Office, Dacca Division,
Dacca, 18 May 1849.

(No. 25.)

From *J. O. Price, Esq.*, Government Cotton Planter, Dacca, to *C. Tottenham, Esq.*,
in charge of the Office of Commissioner of Revenue, Dacca.

Sir,

I HAVE the honour to submit to you, for the information of Government, the quarterly
report of my proceedings from the 1st February to 30th April.

2. During the month of February I visited, as usual, the several places at which we
have got ryottee cultivation, but the nights having continued very cold during the greater
part of the month, and consequently very little change having taken place in the appearance
of the cultivation, I have nothing particular to remark respecting it.

3. Early in the month of March I again proceeded to examine the ryottee cultivation,
and found, that with exception of one or two places, the young plants had benefitted much
by frequent showers of rain we had had, although the rains have been generally accom-
panied with very high winds and frequently hail, which prevented them from being as
beneficial as they otherwise would have been. I have much pleasure in stating that the
present appearance of the farm is very promising.

4. In the early part of this month I was busily engaged on the farm, but having had
an unusually severe hailstorm on the 9th instant, I again left the farm to visit the ryottee
cultivation, to see to what extent it had suffered, and on arriving at Sonargunge, and also at
Kandee, I was sorry to find that scarcely a plant had escaped injury from the hail; but with
care and a little additional cultivation, I am in hopes much of it will recover. Fortunately all
the rest of the cultivation, which is by much the greater part of it, escaped with the loss of a
few of its leaves only. This was much the most severe hailstorm I have seen since I have
been in India; we have therefore a right to be thankful that we have suffered so little
from it.

I have, &c.

(signed) *J. O. Price,*

Government Cotton Planter

Dacca Government Farm,
1 May 1849.

(True copy.)

(signed) *R. Pereira, Assistant.*

Commissioner's Office, Dacca Division,
Dacca, 18 May 1849.

(No. 144.)

SUBMITTED for the information of the Honourable the Deputy Governor of
Bengal.

By order of the Sudder Board of Revenue,

Fort William, 29 May 1849.

(signed) *G. Plowden,*
Secretary.

(No. 5.)

EXTRACT from a General Letter from the Government of Bengal to the Honourable the Court of Directors in the Revenue Department, under date 2 November 1850, No. 24.

I.
Bengal and
North Western
Provinces.

15th or Dacca
Division.

132. HERewith are submitted reports from Mr. Price regarding the cotton cultivation at Dacca, for the 1st, 2d, and 3d quarters of 1849-50.*

The abandonment of the experimental cotton cultivation at Dacca, and the deputation of Mr. Price to Assam.

133. Your Honourable Court will perceive that, with the approval of the Government of India, this experiment, which has proved a complete failure, has been abandoned; in seven years the cotton farming establishment having cost Rs. 41,106. 4. 6., while the return from the cotton had not amounted to more than 580 rupees.

134. I concurred with the Sudder Board in opinion as to the inexpediency of commencing a new experiment either in the Tenasserim provinces, or in the islands to the north of the Megna, as proposed by Mr. Price.

135. Subsequently to the issue of the above orders, a correspondence was received from the Sudder Board, from which it appeared that the Commissioner, Major Jenkins, was favourable to the introduction of this experiment into Assam; I accordingly authorised Mr. Price to be deputed to Assam, drawing the salary of his appointment, and in communication with the Commissioner to make the necessary preliminary inquiries on the subject; but the Board were informed that I would await a further report before deciding upon any future operations being carried on by Mr. Price.

EXTRACT from the Proceedings of the Government of Bengal, in the Revenue Department; dated 19 September 1849.

(No. 263.)

No. 20.

From the Secretary to the Sudder Board of Revenue to *J. P. Grant, Esq.*, Secretary to the Government of Bengal, Revenue Department; dated Fort William, 31st August 1849.

Sir,

I AM directed by the Sudder Board of Revenue to submit herewith a copy of Mr. Price's report on the experimental cotton cultivation in the Dacca division, for the first quarter of 1849-50.

Mis. Dept.
Present:
E. M. Gordon
and H. Ricketts,
Esqrs.

2. Nearly a year and a half having elapsed since the continuance of the experiment was sanctioned by the Governor of Bengal (as communicated in Under Secretary Mr. Seton Karr's letter of the 29th March 1848, No. 235), the Board would suggest that it is time to call upon the Commissioner for a report as to whether it is advisable to carry on the experiment any longer.

I have, &c.
(signed) *G. Plowden*, Secretary.

(No. 38 of 1849.)

No. 21.

From *J. O. Price, Esq.*, Government Cotton Planter, Dacca, to *R. H. Mytton, Esq.*, Officiating Commissioner of Dacca Division.

Sir,

I HAVE the honour to submit to you, for the information of Government, the quarterly report of my proceedings, from the 1st of May to the 31st July.

On the 1st of May I proceeded to Atkandee, at which place I remained for three days, making the ryots carefully cultivate the lands on which the cotton plant had suffered severely from the late hail-storm, which I mentioned in my last report had been particularly destructive in that neighbourhood. My next visit was to Sonargunge, at which place I was pleased to find that much of the young plant had in a great measure recovered from the effects

* Revenue Proceedings, 19 September 1849, Nos. 20 to 22; 6 February 1850, Nos. 18 to 21; 27 March 1850, No. 30; 1 May 1850, Nos. 19 and 20; 3 July 1850, Nos. 37 and 38.

I.

Bengal and
North Western
Provinces.

effects of the hail-storm above mentioned. I next went to Dhamghur, in which neighbourhood the ryots almost all planted Bourbon seed, their crop from which is more promising than any other part of the ryottee cultivation. From thence I returned to the farm and after giving necessary directions there, I proceeded up the Boreegunga, and examined the cotton lands at Deyapore, which, from the extreme lightness of the land and neglect of cultivation, is in a very hopeless state. The cultivation at Phoolbarriah is short for its age, but healthy in colour of leaf, and having all the rainy season to grow, I am in hopes will obtain sufficient size before the dry season sets in, by which time it should be in full blossom. The growth of all kinds of cotton on the farm has been very rapid this month, and its appearance most healthy.

We have had a great deal of rain this month, accompanied frequently with very high winds.

During the month of June I was prevented from visiting the ryottee cultivation by a most severe attack of rheumatism, which quite crippled me for the greater part of the month, during which time I sent my sirkar to visit and examine the progress of the ryottee cultivation, who reports favourably of it. We have had a great deal of rain this month, but less boisterous than last month was.

In the early part of July I visited Phoolbarriah, to which place I had sent a sirdar from the farm to see the cotton land properly cleaned, and the plant sufficiently moulded, from which I am in hopes it may derive much benefit in quickening its growth. From this place I went to Manickgunge, at which place we had fortunately only a small cultivation, as the greater part of the land on which it was has been carried away by the river; that that is left is planted with Patna seed, and looking remarkably well. From thence I returned to the farm, and remained until the 21st, by which time the inundation was so unusually high that nearly all the farm had more or less water on it; and on visiting Phoolbarriah, which I did on the 23d, I found the cotton there in the same state. We have been most unfortunate in having such unusually high inundations for two years in succession, although I am in hopes that the cotton, from having attained sufficient size, being nearly all October and November plant, will not suffer much from it; at least, if we may judge from a field that we had on the farm of the same age last year. The river is now falling fast; and, trusting it may continue to do so,

I have, &c.
(signed) J. O. Price,
Government Cotton Planter.

Dacca Government Farm,
1 August 1849.

(A true copy.)
(signed) G. Plowden, Secretary.

Sudder Board of Revenue,
Fort William, 31 August 1849.

No. 22.

(No. 780.)

From *W. Seton Karr*, Esq., Under Secretary to the Government of Bengal, to
G. Plowden, Esq., Secretary, Sudder Board of Revenue.

Revenue.
Sir,

I AM directed to acknowledge the receipt of your letter, No. 263, dated the 31st ultimo, submitting Mr. Price's report on the experimental cotton cultivation at Dacca, for the first quarter of 1849-50, and to request that the Board will, as suggested, call upon the Commissioner to report whether it is advisable to continue the experiments in question any longer.

I have, &c.
(signed) *W. Seton Karr*,
Under Secretary to the Govt. of Bengal.

Fort William, 19 September 1849.

EXTRACT from the Proceedings of the Government of Bengal, in the Revenue
Department, under date 6 February 1850.

No. 18.

(No. 447.)

From the Secretary to the Sudder Board of Revenue to *J. P. Grant*, Esq.,
Secretary to the Government of Bengal, Revenue Department; dated Fort
William, 18 December 1849.

Sir,

In reply to Under Secretary Mr. Seton Karr's letter, dated the 19th September last, No. 780, I am directed by the Sudder Board of Revenue to submit herewith a copy of a letter from the Officiating Commissioner of Dacca, dated the

Mis. Dept.
Present:
E. M. Gordon
and H. Ricketts,
Esqrs.

the 1st instant, No. 296, with its enclosures, relative to the cotton cultivation in Dacca, together with a copy of Mr. Price's report of his proceedings for the quarter ending the 31st October last.

2d. In his report, Mr. Price proposes, in the event of the Dacca experimental farm being abandoned, to commence a new experiment, either in the Tenasserim provinces or in the islands of Bullooh, at the mouth of the Megna; but the Board are unable to support his proposition. In Tenasserim, they observe, there are no ryots, and labour is scarce; so that, even if the experiment were to succeed, it would be found impracticable to extend the cultivation. The islands at the mouth of the Megna are too low, and the lands too much saturated with salt, to be fit for growing cotton.

3d. The Board therefore concur in opinion with the Commissioner, that the experiment should be abandoned on the 1st May next, if the return from the crops on the ground be not sufficient to cover the outlay.

I have, &c.
(signed) *G. Plowden*, Secretary.

Sudder Board of Revenue.

(No. 296 of 1849.)

From *R. H. Mytton*, Esq., Officiating Commissioner of Dacca, to the Sudder Board of Revenue, Fort William.

Gentlemen,

I HAVE the honour to acknowledge receipt of your Secretary's letter, No. 231, dated 16th ultimo.

2d. The annexed account current, embracing a period of seven years, shows an expenditure on the cotton farm of Rs. 41,106. 4. 8., with a return of 4,640 lbs. of cotton, which, at the bazar rate of 2 annas per lb., amount to 580 rupees.

3d. There is nothing in this result to encourage a continuance of the experiment, but the annexed copy of a letter* from Mr. Price gives hopes of some return by the 1st of May. * No. 65, dated 6 November 1849.

4th. I would propose to inform him, that if the return be not sufficient to cover the annual expense, the establishment will be abolished, and the concern wound up on that date.

I have, &c.
(signed) *R. H. Mytton*,
Officiating Commissioner of Revenue.

Commissioner's Office, Dacca Division,
Dacca, 1 December 1849.

(No. 65 of 1849.)

From *J. O. Price*, Esq., Government Cotton Planter, to *R. H. Mytton*, Esq.,
Officiating Commissioner of Dacca Division.

Sir,

HAVING been requested by Mr. Pereira to state, for your information, when the result of the present experiment will be known, and also to express my opinion respecting the likelihood of success in the present crop, in reply to which, I have the honour of informing you that nothing could be more promising than the farm is at present. We have been picking cotton lightly last month, and the trees are now covered with young bolls; so that I hope by the 1st of May, which will embrace nearly all the dry weather (only during which time cotton can be properly picked), that I may be able to report favourably of the returns of the farm, and also of that part of the ryottee cultivation that escaped the inundation, on which the ryots have commenced picking. And I have given them notice that they must, previous to the 1st of May, pay for their advances in cotton, or be prepared to return their advances; so that, in case of the out-turn in cotton not meeting our present expectations, there should be no obstacle in the way of terminating the experiment in this district, to do which sooner would not be doing justice to the ryots that have taken advances, by not allowing them the dry season to pick their crop; besides which, the nee expense of the cultivation for the last year would be thrown away.

I have, &c.
(signed) *J. O. Price*,
Government Cotton Planter.

Dacca Government Farm,
6 November 1849.

I.
Bengal and
North Western
Provinces.

MEMORANDUM of the Expenses incurred since the commencement of the Government Experimental Cotton Cultivation, up to 1 May 1847.

Y E A R.	Mr. Price's Allowance.	Neej Cotton Cultivation, including every Charge connected with the Farm, as shown in the Monthly Bill.	Ryottee Cultivation, including every Charge connected with the Farm, as shown in the Monthly Bill.	Contingencies.	TOTAL.
	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>
1843 - - -	1,498 - -	- - - -	- - - -	435 4 -	1,933 4 -
1844 - - -	5,220 - -	- - - -	- - - -	- - -	5,220 - -
1845 - - -	5,400 - -	1,630 2 -	700 - -	- - -	7,730 2 -
1846 - - -	5,400 - -	1,992 12 -	24 - -	- - -	7,416 12 -
1847 - - -	1,800 - -	550 - -	100 - -	- - -	2,450 - -
TOTAL - - Rs.	19,318 - -	4,172 14 -	824 - -	435 4 -	24,750 2 -

REMARKS.—The amount charged under contingencies is for the expense of a dawk allowed me to reach Dacca, and an allowance of 300 rupees to enable me to find means of travelling when employed examining and reporting on the soils, &c., of this and the neighbouring districts, in which capacity I was employed until May 1845.

Dacca Government Farm,
27 March 1848.

(signed) J. O. Price,
Govt. Cotton Planter.

STATEMENT of Sundry Packages of Cotton sent home from the Dacca Government Experimental Cotton Farm, on 21 October 1846.

No.	Lbs.	Marks.	R E M A R K S.
1	45	R.	Grown at Runypore from Mexican seed.
2	39	R.	Ditto - - ditto - - ditto.
3	63	F.	Ditto Dacca Government farm from American seed.
4	45	F.	Ditto - - - - ditto - - - - ditto.
5	48	F.	Ditto - - - - ditto - - - - ditto.
6	43	A.	Ditto Assam from native seed.
7	46	T.	Ditto Tipperah - ditto.
8	16	T.	Ditto - ditto - ditto.
9	17	D.	Ditto Dacca from fine native seed.
10	16	B.	Ditto Phoolbarreah from Bourbon native seed.

Dacca Government Farm,
27 March 1848.

(signed) J. O. Price,
Govt. Cotton Planter.

MEMORANDUM of the Expenses incurred by the Government Experimental Cotton Cultivation, from 1 May 1847 up to 1 May 1848.

Y E A R.	Mr. Price's Allowance.	Neej Cotton Cultivation, including every Charge connected with the Farm, as shown in the Monthly Bill.	Ryottee Cultivation, including every Charge connected with the Farm, as shown in the Monthly Bill.	Contingencies.	TOTAL.
	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>
1848 - - -	5,400 - -	1,794 2 8	800 - -	- - -	7,994 2 8

REMARKS.—The amount charged under neej expenditure, includes the expenses incurred in removing the bungalow, godown, and coolies' huts from Toke Farm (lately abandoned) to Bucktobolee Chur, and erecting the same at that place. The amount charged for ryottee expenditure is for advances lately made for chur land to be planted this month.

Dacca Government Farm,
19 May 1848.

(signed) J. O. Price,
Govt. Cotton Planter.

MEMORANDUM of Sums realised by the Government Experimental Cotton Cultivation,
from 1 May 1847 to 1 May 1848.

D A T E.	Sums realised.	Cotton Shipped.	Unginned Cotton in hand.	Ginned Cotton in hand.	REMARKS.
	<i>Rs. a. p.</i>	<i>Bales.</i>	<i>Lbs.</i>	<i>Lbs.</i>	
1 May - -	- - -	- - -	3,840	- - -	About three-fourths of the cotton on hand was grown from American seed, and the remainder from native seed.

Dacca Government Farm,
19 May 1848.(signed) *J. O. Price,*
Govt. Cotton Planter.MEMORANDUM of the Expenses incurred by the Government Experimental Cotton Cultivation,
from 1 May 1848 to 1 May 1849.

Y E A R.	Mr. Price's Allowance.	Neej Cotton Cultivation, including every Charge connected with the Farm, as shown in the Monthly Bill.	Ryottee Cultivation, including every Charge connected with the Farm, as shown in the Monthly Bill.	Contingencies.	TOTAL.
	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>
1849 - - -	5,400 - -	1,362 - -	1,600 - -	- - -	8,362 - -

REMARKS.—We have at present a large cultivation on hand of both neej and ryottee, the greater part of which is very promising.

Dacca Government Farm,
17 May 1849.(signed) *J. O. Price,*
Govt. Cotton Planter.MEMORANDUM of Sums realised by the Government Experimental Cotton Cultivation,
from 1 May 1848 to 1 May 1849.

D A T E.	Sums realised.	Cotton Shipped.	Unginned Cotton remaining on hand from last Year's Account.	Unginned Cotton remaining on hand of the present Year.	TOTAL.
	<i>Rs. a. p.</i>	<i>Bales.</i>	<i>Lbs.</i>	<i>Lbs.</i>	<i>Lbs.</i>
1 May - - -	- - -	- - -	3,840	800	4,640

REMARKS.—The unusually high inundations we had in the months of July and August last in this district, destroyed the whole of our cotton fields, both neej and ryottee, with exception of one small field of Bourbon on the farm; this I hope will account for the deficiency of produce in this year's account.

Dacca Government Farm,
17 May 1849.(signed) *J. O. Price,*
Govt. Cotton Planter.

(No. 67 of 1849.)

From *J. O. Price, Esq.,* Government Cotton Planter, Dacca, to *R. H. Mytton, Esq.,*
Officiating Commissioner of Dacca Division.

Sir,

I HAVE the honour to submit to you, for the information of Government, the quarterly report of my proceedings, from the 1st of July to the 31st of October; also, most respectfully to offer my opinion with respect to the likelihood of the present experiment in this district ever realising the view of Government.

2. During the month of August very little could be done in the shape of cultivation, on account of the very high inundation we had, accompanied with almost incessant rain for the greater part of the month.

3. Early in the month of September the water had receded so far as to enable us to commence cultivation on the highest parts of our lands, from which time until the present date I have been busily engaged in visiting the ryottee and neej cultivation alternately, and in seeing that each had proper cultivation; so as to be perfectly satisfied in my own mind

I.

Bengal and
North Western
Provinces.

(previous to my submitting this report) with respect to our future hopes of bringing the experiment to a successful termination; and, if not so, of recommending to Government the utility of removing the experiment to some other district to the southward better suited for the cultivation of exotic cotton than this part of India is, and to allow the experiment in this district to terminate with the present official year, which would allow the ryots that have succeeded with their crop sufficient time to pick their cotton and make it over in payment of advances; also time to enable those who had not succeeded to return at least a fair proportion of their advances, agreeable to instructions received in a letter, No. 50, of the 17th April 1849, from J. Dunbar, Esq., Commissioner, previous to his removal to the Sudder Board, which arrangement would also allow time to pick the crop from the neej cultivation, which it gives me much pleasure in stating is, as far as present appearance goes, very promising. But I regret to state, and that from sad experience, by which I have been often deceived in this experiment, that little or no confidence can be placed in the appearance of the plant of exotic cotton in this district; this fatality in the plant appears to arise from a want of strength or stamina in the plant to bring its bolls to perfection, which appears to be occasioned from a constant rotation of releafing, flowering, and bolling which the plant undergoes, which nothing but the very richest land could give support to and bring to perfection, and that not perhaps many years in succession. This evil I have tried to correct in several ways, such as depriving it of a portion of its flowers, also pruning, but to no purpose; which fully convinces me that nothing but the very richest and finest lands are suited for the cultivation of exotic cotton in this country, and particularly so when we take into consideration that the lands planted with exotic seed must remain under crop for four or five years in succession. Not so in America, where the plant is an annual, and where the land has the advantage of resting for three or four months in the year, besides the advantage it derives from about two months of severe frost annually. Another very convincing proof of very rich land being required for the cultivation of exotic cotton is that of its succeeding so well in all gardens where it has been tried, the lands of which are (as a natural consequence) not only rich, but highly cultivated. Being therefore fully convinced of the improbability of our succeeding with the experiment, unless favoured by Government with a removal to some other district containing lands of a richer nature than the light sandy alluvial soil of this district, and consequently better suited for the purpose of cotton cultivation than this is, which belief encourages me in taking the liberty of recommending to the notice of Government the district of Mergin, in Tenasserim, the lands of which, from all the information I can find, are extremely rich, besides the advantage of having the dry and wet season less distinctly marked than any other part of that province; which leads me also to hope that the light American ploughs we have might be brought into successful operation, as the frequent showers that that district is favoured with during the north-east monsoon, and the less frequent rains during the wet season, would be both favourable for that purpose, the effecting of which would be a greater matter in cotton cultivation, as hand labour is not only very expensive but also very tedious. But should Government not feel disposed to remove the experiment to so great a distance, I would beg leave to bring next to their notice the fine islands in the mouth of the Ganges, where the lands are reported to be very rich, with the advantage of sea air, which is well known to be very beneficial to cotton cultivation.

I have, &c.

Dacca. Government Farm, (signed) *J. O. Price*,
20 November 1849. Government Cotton Planter.

(True copies.)
(signed) *G. Plowden*, Secretary.

Sudder Board of Revenue, Fort William,
18 December 1849.

No. 19.

(No. 37.)

From *W. Seton Karr*, Esq., Under Secretary to the Government of Bengal,
to *G. Plowden*, Esq., Secretary to the Sudder Board of Revenue.

Sir,

Revenue.

In reply to your letter, No. 447, of the 18th ultimo, I am directed to inform you, that under the unfavourable circumstances mentioned in the Commissioner's letter, the Honourable the Deputy Governor approves of the suggestion of the Board for abolishing the Dacca experimental cotton cultivation on the 1st of May next, should the return from the crops on the ground be not sufficient to cover the outlay already incurred on this matter.

2. His Honor concurs with the Board in opinion, as to the inexpediency of commencing a new experiment of this kind, either in the Tenasserim provinces or in the islands at the mouth of the Megna.

I have, &c.

(signed) *W. Seton Karr*,
Under-Secretary to the Government
of Bengal.

Fort William,
11 January 1850.

(No. 38.)

From *W. Seton Karr*, Esq., Under Secretary to the Government of Bengal, to
W. Grey, Esq., Under Secretary to the Government of India, in the Home
 Department.

Sir,

IN continuation of the letter, No. 631, from this office, of the 16th August 1847, I am directed by the Honourable the Deputy Governor to state, for the information of the Government of India, that from the accompanying copy of a report received from the Sudder Board of Revenue, the experimental cotton cultivation established in the district of Dacca, under the superintendence of Mr. Price, has proved a complete failure, and in consequence, it is proposed to abandon the cultivation.

2. His Honor observes, that in seven years, the cotton farming establishment has cost the Government Rs. 41,106. 4. 8., while the return from the cotton has not amounted to more than 580 rupees.

3. Under these circumstances, his Honor has intimated to the Sudder Board of Revenue his concurrence in their opinion, that the experiment should be abandoned on the 1st of May next, should the return from the crops on the ground be not sufficient to cover the outlay incurred.

4. The project having emanated from the Government of India, the Deputy Governor has thought it right to intimate to the President in Council his intention, as above expressed, previous to the actual winding-up of the concern.

5. His Honor agrees with the Sudder Board as to the inexpediency of commencing any new experiment of this kind in Tenasserim, or at the mouth of the Megna.

I have, &c.

(signed) *W. Seton Karr*,

Fort William,
 11 January 1850. Under Secretary to the Government
 of Bengal.

(No. 62.)

From *W. Grey*, Esq., Officiating Secretary to the Government of India, to
W. Seton Karr, Esq., Under Secretary to the Government of Bengal.

Sir,

I AM directed to acknowledge the receipt of your letter, No. 38, dated the 11th instant, with enclosure, and in reply to state, that under the circumstances therein represented, the President in Council approves of the authority granted by the Honourable the Deputy Governor of Bengal to the Sudder Board of Revenue, to abandon the experimental cotton cultivation established in the district of Dacca, under the superintendence of Mr. Price, from the 1st of May next, should the return be found insufficient to cover the annual expense.

I have, &c.

(signed) *W. Grey*,

Council Chamber,
 25 January 1850. Officiating Secretary to the Government
 of India.

EXTRACT from the Proceedings of the Government of Bengal in the Revenue
 Department, dated 27 March 1850.

(No. 128.)

From the Secretary to the Sudder Board of Revenue to *J. P. Grant*, Esq.,
 Secretary to the Government of Bengal, Revenue Department, dated Fort
 William, 15 March 1850.

Sir,

I AM directed by the Sudder Board of Revenue to submit for the information of the Honourable the Deputy Governor, a copy of Mr. Price's report, dated the 16th ultimo, on the cultivation of cotton in the Dacca district, for the third quarter of 1849-50.

I have, &c.

(signed) *G. Plowden*,

Secretary.

I.
 Bengal and
 North Western
 Provinces.

No. 20.

Revenue.

No. 21.

Home Depart-
 ment, Revenue.

No. 30.

Miscellaneous
 Department.
 Present:
E. M. Gordon and
H. Ricketts, Esqs.

I.
Bengal and
North Western
Provinces.

(No. 10 of 1850.)

From *J. O. Price*, Esq., Government Cotton Planter, to *R. H. Mytton*, Esq.,
Officiating Commissioner of Dacca.

Sir,

I HAVE the honour to submit to you, for the information of Government, the quarterly report of my proceedings from the 1st of November to the 31st of January.

2. During the month of November the cultivation, both neej and ryottee, continued to recover from the effects of the inundation and to yield cotton lightly; but towards the latter end of the month the cold nights changed the colour of its leaf, and prevented the young bolls from coming to perfection.

3. The month of December was unusually cold, and particularly the nights, which, as usual not only checked the growth of the plants, but also prevented the bolls from opening.

4. January having continued very cold, there is no change in the appearance of the plant or otherwise, but we are anxiously looking forward to the change in the weather that usually takes place in the ensuing month, which soon brings a healthy appearance on the plants. The cultivation is suffering much from the want of rain, of which we have not had a shower for more than three months.

I have, &c.
(signed) *J. O. Price*,
Government Cotton Planter.

Dacca Government Farm,
16 February 1850.

(True copy.)
(signed) *G. Plowden*, Secretary.

Sudder Board of Revenue, Fort William,
15 March 1850.

EXTRACT from the Proceedings of the Government of Bengal in the Revenue Department, under date 1 May 1850.

(No. 182.)

No. 19.

From the Secretary to the Sudder Board of Revenue to *J. P. Grant*, Esq., Secretary to the Government of Bengal, Revenue Department; dated Fort William, 16 April 1850.

Miscellaneous
Department

Present:
E. M. Gordon and
H. Ricketts, Esqs.

Sir,

WITH reference to the correspondence noted on the margin,* I am directed by the Sudder Board of Revenue to submit herewith a copy of a letter from the Officiating Commissioner of Dacca, dated the 27th ultimo, No. 99, with its enclosed communication from Mr. *J. O. Price*, Government cotton planter at Dacca, suggesting that a trial in growing cotton be made in the Province of Assam.

2. The experiment at Dacca having failed, the farm will be abandoned without delay, and accounts adjusted. So large a sum has been expended in fruitless experiments in so many places, the Board consider that further outlay on this account would be inadvisable. Even should the climate and soil of Assam be favourable to cotton, labourers amongst so scanty a population would, they fear, be scarcely procurable.

3. With reference, however, to the strong desire evinced by the Home Government to extend the growth of cotton in this country, the Board have deemed it expedient to consult Major Jenkins as to the feasibility of the proposition. Should that officer be able to hold out any hope of success, a further report will be submitted.

I have, &c.
(signed) *G. Plowden*,
Secretary.

* Board to Government, dated 31st August 1849, No. 263. Under Secretary to Government to Board, dated 19th September, No. 780. Board to Government, dated 18th December, No. 447. Under Secretary to Government to Board, dated 11th January 1850, No. 37.

(No. 99 of 1850.)

From *R. H. Mytton, Esq.*, Official Commissioner of Dacca, to the Sudder Board of Revenue, Fort William.

Gentlemen,

I HAVE the honour to annex for your consideration and transmission to Government, copy of a letter* from Mr. Price, the superintendent of the Government cotton farm, begging to be allowed to make an experiment in Assam. I have no reason to think that Mr. Price had not done his best for the promotion of the object Government had in view, but the result of the experiment has been so discouraging and the sum of money expended so large, that I cannot conscientiously recommend the retention of a salaried officer to make further trials. Government will, no doubt, be very happy to facilitate by all means in its power private enterprise in growing cotton.

I have, &c.

(signed) *R. H. Mytton*,
Officiating Commissioner of Revenue.

Commissioner's Office, Dacca Division,
Dacca, 27 March 1850.

(No. 16 of 1850.)

From Mr. *J. O. Price*, Government Cotton Planter, to *R. H. Mytton, Esq.*,
Officiating Commissioner of Dacca Division.

Sir,

I HAD duly the honour to receive through you copies of letters from the Under Secretary to the Government of Bengal and the Secretary to the Sudder Board of Revenue, forwarded for my information, communicating that his Honor the Deputy Governor of Bengal had resolved on abandoning the experimental cotton cultivation here, unless the crop on the ground be sufficient to cover the outlay.

2. It is with deep regret, after the toil of another season, and the heavy expense entailed upon Government, that I am compelled to announce the want of success in my much desired object of introducing the production of exotic cotton in this district.

3. The failure is principally to be attributed to the flat state of the country and its being completely submerged by the annual inundations, which have, unfortunately for the experiment, come earlier, lasted longer, and more completely covered the face of the country these two years past, than has been known by the oldest inhabitants. This circumstance, well known to the late Commissioner, Mr. Dunbar, has not only been destructive to the experimental farm under my charge, but has so completely disheartened the ryots, who hitherto cultivated cotton on their own account, that it has almost disappeared in these parts; and I certainly, however sanguine I may have been and mortified at my want of success, can hold out nothing to induce the Government to persevere in a longer experiment in the Dacca district.

4. In the year 1839 Mr. Emerson Tennant first brought the subject of encouraging India cotton to the notice of Mr. W. G. Johnson (my cousin, and at that time Member of Parliament for Belfast), who persuaded me (having just returned from the West Indies, where I had been engaged in agricultural pursuits for nearly 10 years) to proceed to the cotton districts of the United States, with the expectation of employment in this country; and with that prospect I went to America at a great expense, and remained there for three years, acquiring local and practical information of the system pursued in that great cotton-producing country. I then came to Calcutta with letters of recommendation from Mr. E. Tennant to Lord Ellenborough, then Governor-General of India.

5. It has since been my unremitting endeavour to prove myself worthy of the high honour conferred on me, and great has been my mortification, year after year, to see my anxious endeavours unsuccessful.

6. I would still much desire a short and not an expensive further trial at a new location, and I hope his Honor the Deputy Governor of Bengal may be induced to permit it. The object is a great national one, and even partial success would give confidence to the Government. I therefore earnestly beg your favourable recommendation that I may be permitted to try Assam, where, from the information I have been able to get from intelligent agriculturists who have been in that province, I am led to believe the land is particularly well suited for the growth of cotton upon the rich sloping plains, out of the reach of inundation. The inhabitants of Assam now grow cotton, but of a very indifferent description; and where it is so grown as their chief crop, the introduction of seed of a superior description, both native and exotic, would be easily managed, and a small experimental farm of 40 or 50 biggahs at a trifling expense might at the same time be made, and the soil and climate sufficiently tested.

I.
Bengal and
North Western
Provinces.

7. If his Honor the Deputy Governor of Bengal would permit me to try Assam, I would beg permission to proceed up there in June, to see and report upon the soil, and, with the concurrence of the Commissioner of Assam, induce the hill tribes to plant foreign seed, which I might take up with me; and at the same time, with the approval of Major Jenkins, plant out a few beegahs by way of experiment. I understand the natives in Assam grow cotton very similar to that which comes from the Tipperah country, and that amongst both it is the chief crop grown. From the Tipperah hills alone nearly a lac of maunds are annually brought in to the Sylhet and Tipperah district; and where so large a quantity of cotton of an inferior quality is grown, it is a convincing proof that the people, the soil, and the climate are well suited for its production, and by the introduction of better seed and encouragement, I do think a better description and increased cultivation might be reasonably looked for; and I trust you will be so kind as to bring this proposal to the favourable attention of his Honor the Deputy Governor of Bengal.

8. The expense will be very trifling, as the time required will be but short, and, if unsuccessful, I will feel the mortification of want of success in a great, beneficial, and national experiment; and, if otherwise, as I earnestly hope it may be, and that success crowns my exertions, I shall have the proud satisfaction of having been the humble instrument, under the Government of India, of extending the cultivation of a superior description of cotton in the vast and fertile province of Assam. With apology for the length of this address,

I have, &c.
(signed) *J. O. Price,*
Government Cotton Planter.

Dacca Government Farm, 25 March 1850.

(True copies.)
Sudder Board of Revenue, (signed) *G. Plowden, Secretary.*
Fort William, 16 April 1850.

(No. 442.)

No. 20. From *W. Seton Karr, Esq.,* Under Secretary to the Government of Bengal,
to *G. Plowden, Esq.,* Secretary to the Sudder Board of Revenue.

Revenue. Sir,
In reply to your letter, No. 182, of the 16th instant, I am directed by the Deputy Governor of Bengal to inform you that should Major Jenkins report favourably on the possibility of growing cotton in Assam, his Honor would not object to Mr. Price being sent to the province in June, as proposed, to examine and report upon the chance of cultivating good cotton there with advantage, Mr. Price drawing the same salary as he now does, to include all charges.

2. His Honor approves of the abandonment of the farm at Dacca, and the adjustment of its accounts.

I have, &c.
(signed) *W. Seton Karr,*
Under Secretary to the Government of Bengal.
Fort William, 27 April 1850.

EXTRACT from the Proceedings of the Government of Bengal in the Revenue Department, under date 3 July 1850.

(No. 276.)

No. 37. From the Secretary to the Sudder Board of Revenue to *J. P. Grant, Esq.,* Secretary to the Government of Bengal, Revenue Department; dated Fort William, 10 June 1850.

Miscellaneous
Department.

Sir,

Present: With reference to Under Secretary Mr. Seton Karr's letter of the 27 April last, No. 442, I am directed by the Sudder Board of Revenue to forward herewith, for the information of the Honourable the Deputy Governor of Bengal, a copy of the correspondence noted on the margin,* relative to the transfer of the experiment to grow cotton to the Assam province.

I have, &c.
(signed) *Geo. Plowden, Secretary.*

Sudder Board of Revenue.

* From Commissioner of Assam, dated 15th ultimo, No. 102, to Officiating Commissioner of Dacca, dated 10th instant, No. 176.

(No. 102.)

From Major *F. Jenkins*, Commissioner of Revenue, Assam, to the Sudder Board of Revenue, Fort William; dated Gowhatty, 15 May 1850.

Gentlemen,

I HAVE the honour to acknowledge the receipt of your letter, No. 32, of the 16th ultimo, calling upon me for my opinion as to the possibility of cultivating cotton in the province of Assam.

2. I would beg to refer the Board to my letter, No. 89, of the 22d May 1848, and particularly to the seventh paragraph, in which I recommended the experiment of a cotton plantation in the Muttuck district of Luckimpore.

3. My suggestion then was, that a plantation should be tried in connexion with the tea plantations, on a very limited scale. The tea plantations have since been sold, but I still consider it desirable that the experiment should be tried; and if under the superintendence of Mr. Price, of course on a much larger scale than I then contemplated, for the establishments being expensive, the cultivation should be on a scale somewhat commensurate to that expense, with the hope of its repaying the costs.

4. In my letter referred to, I have adverted at length to the reasons which induced me to make the above recommendation, and I need now only to allude to them briefly; they are as follows:

The lands in Muttuck now raise the best cotton that is produced in this province.

The small experiments that have been made with foreign seed have been attended with very successful results, as to the main object of the experiment, the quality of the wool.

The soil and climate may, therefore, be considered favourable to the growth of cotton from foreign seed.

The inhabitants are already largely engaged in the growth of cotton.

Any extent of land, that is from 50,000 to 100,000 acres of land may be obtained, free of all costs, being already the property of Government, and lying waste.

The occupation of a large portion of the waste lands of Assam by some cultivation, as cotton, that would require the breaking up of a good deal of ground, is calculated, in my opinion, to give a value to all the cultivated lands of Assam, and, with the employment amongst the ryots of the capital that would be introduced for carrying on the experimental cultivation, I conceive the cotton plantations would be eminently useful to this province; and there also appears a very fair prospect of the experiment being attended with national benefit. I believe, indeed, that in no other part of India could the experiment be made at a less cost, or with a fairer prospect of success.

I have, &c.

(signed) *Fras. Jenkins*,
Commissioner, Revenue.

(No. 176.)

From the Secretary to the Sudder Board of Revenue to the Officiating Commissioner of Revenue for the Division of Dacca; dated 10 June 1850.

Sir,

WITH reference to my letter of the 7th ult., No. 133, I am directed by the Sudder Board of Revenue to request that you will instruct Mr. Price to proceed forthwith to Assam, and to place himself in communication with the Commissioner of that Province.

2. The Board presume that the accounts in Dacca have been closed, and that there is no impediment to Mr. Price's proceeding at once to his new destination. Mr. Price will probably find the implements belonging to the Dacca farm necessary for his future operations in Assam, and may be allowed to take them with him.

Sudder Board of Revenue, Fort William,
10 June 1850.

I have, &c.

(signed) *G. Plowden*,
Secretary.

(True copies.)

(signed) *Geo. Plowden*, Secretary.

Sudder Board of Revenue, Fort William,
10 June 1850.

(No. 618.)

From *W. Seton Karr*, Esq., Under Secretary to the Government of Bengal, to *G. Plowden*, Esq., Secretary to the Sudder Board of Revenue.

Sir,

I AM directed by the Deputy Governor of Bengal to acknowledge the receipt of your letter, No. 276, of the 10th instant, and to inform you that his Honor approves of the orders issued by the Board for the deputation of Mr. Price to Assam, for the purpose of inspecting and reporting on a suitable locality for the culture of cotton in that province.

296—Sess. 2.

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2. The

I.
Bengal and
North Western
Provinces.

Miscellaneous
Department.

Present:
E. M. Gordon and
H. Ricketts, Esqrs.

No. 38.

Revenue.

I.
Bengal and
North Western
Provinces.

2. The Deputy Governor will await a further report before deciding on any further operations.

I have, &c.

(signed) W. Seton Karr,

Fort William,
28 June 1850.

Under Secretary to the Government of Bengal.

(No. 1.)

EXTRACT from a general Letter from the Government of Bengal to the Honourable the Court of Directors in the Revenue Department (No. 19 of 1851), dated 1 November.

Mr. Price's report
on cotton cultivation
in Assam.
Revenue Pro.
9 April 1851,
Nos. 48 and 49.
Revenue Pro.
9 July 1851,
Nos. 34 to 36.

4. Your Honourable Court were informed in paragraphs 132 to 135 of the revenue despatch, No. 24 of 1850, that the experimental cotton cultivation at Dacca under Mr. Price had been abandoned, and that that gentleman had been deputed to proceed to Assam to examine into and report on the chances of growing good cotton in that province.

5. Among the papers now forwarded will be found Mr. Price's report, from which it will be seen that he had selected lands in Muttuck and the neighbourhood of Sackerah as being well suited to the cultivation of cotton, and much superior to any that he had ever seen in India. Mr. Price also reported very favourably of the Assam cotton called Dhera, as being of a very superior quality, and capable of being grown to an immense extent in Assam, and when fairly treated, likely to be found suitable for the English market.

6. In submitting Mr. Price's report the Board of Revenue, Lower Provinces, observed, that it was clear to them that cotton could only be extensively cultivated in the locality selected by that officer, by labour of coolies imported from other districts, the population of Assam being very scanty, and the people not in the habit of working for hire.

7. Under these circumstances, the Board stated that it was doubtful whether the cultivation of cotton in Assam would pay any one, much less the Government, but with such sanguine statements before them as those of Mr. Price and the local revenue authorities, they did not feel themselves justified in recommending the abandonment of the experiment, and they therefore solicited the sanction of Government to the outlay of 1,259 rupees for the expenses of the farm at Muttuck to the end of December next, as recommended by the Commissioner, in addition to what had been already sanctioned (450 rupees).

8. The Board further stated that they had directed Mr. Price to examine other parts of the country, and especially to ascertain whether labourers were procurable, and at what cost, and with reference to the produce of the farm this year, to send them an estimate of the rate at which Dhera cotton might be produced in Assam, and at what rate shipped from Calcutta.

9. The agricultural society of this place, the Board also intimated, had been applied to for a small quantity of each of the different kinds of cotton seed they might have, for the purpose of being forwarded to Mr. Price for trial in Assam.

10. The Board were informed that I authorised the further outlay of 1,259 rupees for the purpose specified by them, to the end of December next, and they were directed to report the result of this expenditure at the close of the current year.

TO PROMOTE THE CULTIVATION OF COTTON IN INDIA. 219

EXTRACT from the Proceedings of the Government of Bengal in the Revenue Department, under date the 9th April 1851.

(No. 150.)

From the Secretary to the Board of Revenue, Lower Provinces, to *J. P. Grant, Esq.*, Secretary to the Government of Bengal, Revenue Department, dated Fort William, 18 March 1851.

Sir,

I AM directed by the Board of Revenue to submit for the consideration and orders of the Honourable the Deputy Governor, a copy of a letter from the Officiating Commissioner of Assam, No. 53, dated the 26th ultimo, and of one to which it gave cover from Mr. Price, the superintendent of Government cotton cultivation in that province, applying for an advance of 1,000 rupees, to enable him to establish a cotton farm at Dum Duma, in Muttuck.

2. This is stated to be a more favourable locality for the cultivation of cotton, both as regards the quality of the soil and the facility of obtaining labourers, than that at first selected by Mr. Price in the vicinity of Dibrooghur.

I have, &c.

(signed) *G. Plowden, Secretary.*

(No. 53.)

From Lieutenant *James Mathie*, Officiating Commissioner of Revenue, Assam, to the Board of Revenue, Lower Provinces, Fort William, dated Gowahattee, 25 February 1851.

Gentlemen,

I HAVE the honour, at the request of Major Jenkins, who is now on duty in Upper Assam, to submit a copy of a letter, No. 8, of the 10th instant, from Mr. J. O. Price, superintendent of Government cotton cultivation, applying for an advance of 1,000 rupees, to commence a cotton farm at Dum Duma, in Muttuck.

2. I am informed that Mr. Price mentioned to Major Jenkins that he was not at first satisfied with the localities about Saikwah, to which Captain Vetch had directed him, in consequence he went nearer to Dibrooghur, where he at first began a clearance; but it now appears he is better satisfied with the lands about Dum Duma, and has determined to commence a farm there immediately; I therefore solicit the advance asked for by Mr. Price may be authorised with the least possible delay.

3. I beg to add, Mr. Price reports very favourably of the cotton now grown near Dum Duma.

I have, &c.

(signed) *James Mathie*,
Officiating for Commissioner of Revenue.

(No. 8.)

From *J. O. Price, Esq.*, Superintendent Government Cotton Cultivation, to Major *F Jenkins*, Commissioner of Revenue, Assam.

Sir,

I HAVE the honour of informing you, that on a second and more minute examination of the lands in the neighbourhood of Dum Duma, I have determined on establishing the experimental cotton farm a short distance from that place, on the opposite bank of the river, where there is a very extensive tract of superior cotton land, the jungle on which we will be able to clear off at a much less expense than we could that on either the lands nearer to Saikwah or Dibrooghur; besides, labourers will be more easily procured there than at either of the other places. I therefore beg leave to enclose you a bill for an advance to commence operations with, which I purpose doing as soon as possible. Annexed you will please observe the purposes for which the advance is required.

I have, &c.

(signed) *J. O. Price*,

Superintendent Government Cotton Cultivation, Assam.

Saikwah,

February 1851.

	Rs.	a.	p.
Outlay required to clear jungle off 100 paras of land at 5 rupees } per para - - - - - }	500	-	-
„ to erect a bungalow and other houses for sundry } purposes - - - - - }	400	-	-
„ for miscellaneous purposes - - - - - }	100	-	-
TOTAL - - - Co.'s Rs.	1,000	-	-

Board of Revenue, Lower Provinces,
Fort William, 18 March 1851.

(True copies.)

(signed) *G. Plowden, Secretary.*

I.
Bengal and
North Western
Provinces.

(No 464.)

From *W. Seton Karr*, Esq., Under Secretary to the Government of Bengal, to
A. C. Bidwell, Esq., Officiating Secretary to the Board of Revenue.

No. 49.
Revenue.

Sir,
I AM directed by the Deputy Governor of Bengal to acknowledge the receipt of the letter from your office, No. 150, dated the 18th ultimo, respecting an advance of 1,000 rupees, required by Mr. Price, the superintendent of the late Dacca cotton experimental farm cultivation, for the purpose of establishing a cotton farm at Muttuck, in Assam; and to observe, that when the experimental farm at Dacca was given up, Mr. Price was permitted, in the letter from this office, dated the 17th April 1850, to proceed to Assam, to examine into and report on the chances of growing good cotton in that province; and subsequently, when the Board, by Mr. Plowden's letter of the 10th June last, forwarded a communication from Major Jenkins, in which that officer appeared to view the project favourably, his Honor distinctly informed the Board that he would "await a further report before deciding on any further operations."

2. In the absence of any such report, as well as of all information upon the probable cost of the experiment, his Honor is unable to grant any advance, as no expense can be incurred till it be determined whether the experiment of a cotton farm is or is not to be repeated.

3. The Deputy Governor desires that the Board will inform Major Jenkins that Mr. Price's report, with a fuller estimate of the probable expense, is expected.

I have, &c.

(signed) *W. Seton Karr*,
Under Secretary to the Government of Bengal.
Fort William,
9 April 1851.

EXTRACT from the Proceedings of the Government of Bengal in the Revenue Department,
dated 9th July 1851.

No. 34.

(No. 323.)

From the Officiating Secretary to the Board of Revenue, Lower Provinces, to
J. P. Grant, Esq., Secretary to the Government of Bengal, Revenue Department,
dated Fort William, 27 June 1851.

Land Revenue.

Present:
E. M. Gordon,
H. Ricketts, and
C. Currie, Esqrs.

Sir,
WITH reference to the orders of Government, dated the 9th April last, No. 464, I am directed by the Board of Revenue to submit, for the consideration and orders of the Honourable the Deputy Governor, a letter from the Commissioner of Assam, No. 124, dated the 3d instant, and its English enclosures, forwarding Mr. Price's report on the experimental cotton cultivation in Assam, and communicating further information relative to the estimated expense of the proposed cotton farm at Muttuck.

2. Mr. Price states, that the lands in Muttuck and the neighbourhood of Saikwah are well suited to the cultivation of cotton, being much superior to any that he has previously seen in India; that it resembles more the description of soil on which the Sea Island cotton is grown in America, than any he has seen elsewhere. Mr. Price also reports very favourably of the Assam cotton called Dhera. He states, that it is of a very superior kind, easily cultivated, affording a fair sized boll, and yielding a larger proportion of wool when cleaned than any other kind of native cotton he has yet seen; that it is of a softer and more silky nature than usual in native cotton; that, notwithstanding it is often injured by the native system of gathering, it brings a much higher price than any other kind of native cotton, which leads him to think that, when fairly treated, it will be found suitable for the English market; and he adds, that it could be grown in Assam to an immense extent.

3. It is clear, however, the Board observe, that cotton could only be extensively cultivated in the locality selected by Mr. Price for the experiment by the importation of coolies from other districts. The population in Assam is very scanty, and the people are not in the habit of working for hire. It may be doubted whether the cultivation of cotton in the province would pay any one; and it is certain that it would not pay the Government to work cotton plantations with hired labour.

4. Nevertheless, with such statements before them as those furnished by Mr. Price and the local revenue authorities, the Board would not feel justified in recommending the abandonment of the experiment; and they therefore solicit the sanction of Government to the outlay of a further sum of 1,259 rupees,* for the expenses of the farm at Muttuck, to the end of December next, as recommended by the Commissioner.

5. The

* Total outlay according to Mr. Price's estimate - - - - - Rs. 1,709
Already sanctioned by Government: - - - - - 450

Rs. 1,259

5. The Board have directed Mr. Price to examine other parts of the country, and especially to ascertain whether labourers are procurable, and at what cost, and with reference to the produce of the farm this year, to send them an estimate of the rate at which Dhera cotton might be produced in Assam, and at what rate shipped from Calcutta.

6. The Board have also applied to the Agricultural Society for a small quantity of each of the different kinds of cotton seed they may have, for the purpose of being forwarded to Mr. Price for trial in Assam.

7. The return of the enclosures, with your reply, is solicited.

I have, &c.
(signed) A. C. Bidwell,
Officiating Secretary.

(No. 124.)

From Major *F. Jenkins*, Commissioner of Revenue, Assam, to the Board of Revenue, Lower Provinces, Fort William, dated Gowahattee, 3 June 1851.

No. 35.
Enclosure.

Gentlemen,

WITH reference to the Board's letter, No. 41, dated 18th April last, and its enclosure from Government, requiring a report from Mr. Price with a fuller estimate of the probable expense connected with the cultivation of cotton, I have the honour to transmit a copy of a letter, No. 124, dated 26th ult., from Captain Vetch, and its enclosures* from Mr. Price relative to the work already done, with its expenditure from 11th October 1850 to a portion of May 1851, amounting to 815 rupees, and 894 rupees required to meet the expenses up to December 1851, both amounting to 1,709 rupees, of which 200 and 250 rupees were sanctioned in Mr. Under Secretary Seton Karr's letters, Nos. 1223 and 387, dated 14th December 1850, and 19th March last, received with the Board's proceedings, Nos. 130 and 29, of 20th December 1850, and 25th March last.

2. I beg to submit for the Board's information, a copy of a further correspondence as per margin,† relative to the operations connected with the cultivation of cotton under the superintendence of Mr. Price, as well as the samples of cotton alluded to in Mr. Price's letter, dated 19th ultimo, attached to the Collector's last letter noted in the margin, which will be dispatched with this in one parcel, for the inspection of the Board.

3. It appears from the letters of Mr. Price now forwarded, that he has selected for the site of the experimental farm some lands in the vicinity of Saikwah as being preferable, in his opinion, to the lands elsewhere inspected by him, and that he is quite satisfied with the qualities of the soil in its adaptation to the culture of cotton, indeed he considers it superior to any he has seen in India; he is also of opinion that one of the indigenous cottons of the district, that which he calls Dhera, is of a superior kind both as to the quality of the wool and to the quantity produced, and that it is suitable to the English markets.

4. In these opinions it is satisfactory to find that Mr. Price confirms the judgment Captain Vetch and myself had formed of the capabilities of the Muttuck country for the growth of a superior cotton, when we ventured to recommend to the Board the experimental cultivation of this article under Mr. Price's superintendence.

5. Mr. Price has cleared and fenced in a small farm of about 70 biggahs, the greater part of which he appears to have sown with the seed of the native Dhera cotton above-mentioned, and he is about to lay down a small quantity with acclimated American seed, of which, however, he has only a limited supply; and I regret to say his foreign seed, which he received from the Agricultural Society, has altogether failed.

6. Mr. Price's progress has been hitherto much retarded from the want of funds, but as he has now chosen his lands the experimental cultivation can be carried on to any extent the Board and Government may wish, and as his report is altogether favourable as to the fitness of the district for the growth of cotton, it appears to me, that after going to the expense of commencing the present farm under the supervision of a practical American planter, it is most desirable that the experiment should be thoroughly carried out; and I conceive this may be done at no great expense to the Government.

7. There is no object in cultivating cotton to any larger extent than to produce fair samples for the home markets of each kind, but I am of opinion it will be very desirable that the cultivation should be carried on for some time, both that the effects of the climate, soil and scientific culture may be observed on each quality of indigenous, acclimated and

* From Captain Vetch to Mr. Price, No. 104, dated 13th May 1851; and reply, dated 19th idem. Further letter from Mr. Price to Captain Vetch, No. 28, of 24th May 1851, with the accounts referred to.

† No. 69, dated 21st March 1851, from the Collector of Luckimpore, with its enclosure. To ditto in reply, No. 186, dated 10th April 1851. From ditto in reply, No. 123, dated 26th May 1851, and enclosures referred to.

I.
Bengal and
North Western
Provinces.

and exotic seed,* and that the natives may have the opportunity of seeing the Superintendent's mode of management, and in sharing in whatever seeds he might be able to spare; and to distribute superior seeds and encourage the ryots to cultivate their cotton grounds on the American system should I think be important points of the Superintendent's duty.

8. As remarked by Captain Vetch in the third paragraph of his letter, No. 124, it seems likewise desirable that Mr. Price, as opportunities offer, should make a tour of such parts of the Muttuck and Luckimpore districts as he has not yet visited, but I should not recommend his making any further farms at remote distances from his present head-quarters; wherever he noticed however any particular ground that seemed to deserve a trial with any variety of seed, he might either give the seed to the ryots or make small experimental cultivations by contract with them.

9. In conclusion I beg to request that the bills now submitted, amounting in the aggregate to 769 rupees, should be passed by the Board, and that the Board's sanction should be given to the Collector to advance Mr. Price the sum of 940 rupees to carry on his operations to the end of December next.

I have, &c.
(signed) *F. Jenkins*,
Commissioner of Revenue.

(No. 124.)

From Captain *H. Vetch*, Collector of Luckinpoore, to Major *F. Jenkins*, Commissioner of Revenue, As-sam, dated Debrooghur, 26 May 1851.

Sir,

I HAVE the honour to acknowledge the receipt of your letter, No. 232, of the 3d instant, with copies of letters as per margin,† calling for a report on the probable success of the cultivation of cotton in the province with a fuller estimate of its expenses, to be obtained from Mr. Price, together with my own observations on the same. This report of Mr. Price's I have now the honour to submit.‡

2. In it you will observe that he considers Muttuck and the lands in the neighbourhood of Saikwa as well suited for the cultivation of cotton, and that the soil is superior to any he has seen in India for that purpose; he also speaks highly of the quality of the native cotton called Dhera, but for want of funds he had not been able to take advantage to the utmost of the season for clearing; nevertheless about 70 biggahs had been taken up, and the clearings made from funds advanced by himself. He estimates the whole of the expense incurred and to be incurred up to the 31st December next, at 1,234 rupees, and this seems to include his assistant's salary at 50 rupees a month already sanctioned.

3. As Mr. Price is, I conclude, to be fully relied on as to his capability of judging as to the quality of the soil as well as of the native cottons, and as it is the received opinion that the Dhera cotton is of a superior quality to most of that produced in Assam, I think what he has adduced is a full warrant for recommending that the experiment which Mr. Price has taken in hand should be carried out; it does not, however, appear to me necessary that Mr. Price should remain a fixture at Saikwa to watch the progress of one on so small a scale; this I think might be left to the Assistant until the cotton has nearly reached maturity, and Mr. Price might, in the meantime, direct his attention to an inspection of other parts of Upper Assam, at least as far as can be effected by water, for during the next 4½ months land travelling in Assam is scarcely practicable.

4. Should Government not deem it expedient to retain Mr. Price to bring this experiment to maturity, I would still recommend that it be carried out under his Assistant.

5. Although there can be no doubt about the abundance of waste land in the upper part of this district suited for the growth of cotton, how far it would prove remunerative to the cotton grown with hired labour, appears to me in the present state of things very questionable; yet I do not see that it should (under good management) cost more, if so much, to grow cotton in Assam as it does in America, for I conclude the cost of slave labour there must be as great as cooly labour imported into Assam from Bengal would be.

6. Government might well afford to give grants of lands on any terms that would induce the introduction of European enterprise and foreign labour into a country so fertile and so rich

* I should recommend that he be furnished with every variety of seeds procurable, whether native, foreign, or foreign acclimated, but I am not aware how the seeds are to be procured; probably the Board might be able to put me or Mr. Price in communication with the gentlemen who may be superintending Government plantations in either of the presidencies.

† From Board of Revenue to Commissioner of Revenue, No. 41, of the 18th April 1851, enclosing copy of a letter from Government, No. 464, dated 9th April 1851.

‡ Copy of the reports from Mr. Price, Nos. 23 and 28, dated 19th and 24th May 1851, with two original accounts current for March and April 1851.

rich in vegetable* and mineral† productions, intersected in its whole length by a river so favourable to steam navigation as the Burrampootur, if this could be made the means of rousing the natives from their apathy, and of giving a stimulus to industry and trade.

I have, &c.
(signed) *H. Vetch*, Collector.

(No. 104.)

From Captain *H. Vetch*, Collector of Luckimpore, to *J. O. Price*, Esq., Superintendent Government Cotton Plantations, Saikwah; dated Dibrooghur, 13 May 1851.

Sir,

I HAVE the honour to enclose a copy of a correspondence from the Commissioner of Assam,‡ and to request you will without delay furnish the report therein called for, that I may submit it with my own observations.

‡ No. 232, of 3d May 1851, with enclosures.

I have, &c.
(signed) *H. Vetch*, Collector.

Zillah Luckimpore, Collector's Office,
13 May 1851.

(No. 23.)

From *J. O. Price*, Esq., Superintendent Government Cotton Cultivation, to Captain *H. Vetch*, Collector of Luckimpore, dated Saikwah, 19 May 1851.

Sir,

I HAVE the honour of being in receipt of your letter, No. 104, of the 13th inst., enclosing a copy of a correspondence from the Commissioner of Assam, requiring, for the information of his Honor the Deputy Governor of Bengal, a fuller report and estimate of the probable expense likely to be incurred in the cotton experimental cultivation in this district.

2. I beg leave to inform you that I am decidedly of opinion that the lands in Muttuck and the neighbourhood of Saikwah are well suited for the cultivation of cotton, being much superior to any that I have previously seen in India for that purpose, the soil of both places being composed in a great measure of a rich decomposed vegetable substance with a fair proportion of coarse granite sand in it, which are two of the principal ingredients sought after in good cotton land; it in fact resembles more the description of soil on which the Sea Island cotton is grown than any I have elsewhere seen.

3. With respect to the estimate of outlay for the present season it will now naturally differ very much from what it otherwise would have been had I received funds in time to have commenced a cultivation during the dry season in the Muttuck district; this not having been the case, and the dry season being far advanced, I considered I would be best serving Government (until I could receive funds, by which time clearing off wood land) by advancing money myself to establish a small experimental farm near Saikwah, where the first cotton in Assam is grown, and by doing which I would be enabled to test the soil in that neighbourhood, and gain experience with respect to the effects of the climate on the different kinds of cotton that we might be able to cultivate, which I will be obliged at present to limit to that of acclimated American, and the indigenous kind, called Dhera, which is a very superior kind of native cotton, easily cultivated, gives a fair sized boll, and yields a larger proportion of wool when cleaned than any other kind of native cotton I have yet seen; which is of a softer and more silky nature than usual in native cotton, but much injured at present in the field by the native system of gathering in their crop, by which the bolls after opening are much exposed to the climate, and the wool, therefore, becomes bleached and the strength of the fibre much injured, in which imperfect state it brings a much higher price than any other kind of indigenous cotton, which leads me to believe that when fairly treated it will be found suitable for the English markets, and if so could be grown here to an immense extent.

4. I have up to the present date expended in clearing off about 70 biggahs of wood land, in erecting a small godown and other necessary out-houses, and in raising a small bungalow for my own use, which is now better than half finished, the sum of 340 rupees, including my Assistant's pay for the months of March and April, which expenditure, with the accompanying estimate, I sincerely trust may meet with his Honor the Deputy Governor's sanction.

I have, &c.
(signed) *J. O. Price*,
Superintendent Government Cotton Cultivation.

I.
Bengal and
North Western
Provinces.

AN Estimate of Outlay required for the Saikwah Experiment for 1851.

	Rs.
Amount expended up to the present date, as explained in my letter, including my Assistant's salary	340
Outlay required for the remainder of the present month, including my Assistant's salary	94
Outlay required for the month of June, including my Assistant's salary	140
Outlay required for the remaining six months, from the 1st of July to the 31st December, at 110 rupees per month, including my Assistant's salary	660
TOTAL	Co.'s Rs. 1,234

(signed) *J. O. Price,*
Superintendent Government Cotton Cultivation.

(A true copy.)
(signed) *H. Vetch, Collector.*

(No. 28.)

From *J. O. Price, Esq.,* Superintendent Government Cotton Cultivation, to Captain *H. Vetch,* Collector of Luckimpore, dated Saikwah, 24 May 1851.

Sir,

I HAVE the honour to acknowledge the receipt of your letter, No. 117, of the 19th instant, asking for a more detailed account of the probable outlay of this year in the cotton experiment, which I have the pleasure of annexing, and also of enclosing you the monthly accounts of our outlay up to the 1st of May.

I have, &c.
(signed) *J. O. Price,*
Superintendent Government Cotton Cultivation.

AMOUNT of Outlay required for 1851.

As per Accounts rendered for the months of March and	Rs.	Rs.
April	-	294
Outlay already paid for the month of May	46	
Balance required for ditto, at 140 rupees per month	94	
TOTAL	140	140
Outlay required for the month of June, viz.:—		
To F. P. Kingg, Assistant and Writer	50	
Ditto, 1 Burkundauz	5	
Ditto, 2 Cooly Sirdars	7	
Ditto, 26 Coolies at 3 rupees each per mensem	78	
TOTAL	140	140
Outlay required for the month of July:—		
To F. P. Kingg, Assistant and Writer	50	
Ditto, 1 Burkundauz	5	
Ditto, 2 Cooly Sirdars	7	
Ditto 16 Coolies at 3 rupees each per mensem	48	
TOTAL	110	110
Outlay required for the month of August		
Ditto ditto September	110	
Ditto ditto October	110	
Ditto ditto November	110	
Ditto ditto December	110	
TOTAL	Co.'s Rs. 1,234	
Add expenditure up to 10th March 1851	475	
TOTAL		1,709

(True copy.)

(signed) *H. Vetch, Collector.*

(True copies.)
(signed) *F. Jenkins,*
Commissioner of Revenue.

(No. 69)

From Captain *H. Vetch*, Collector of Luckimpore, to Major *F. Jenkins*, Commissioner of Revenue, Assam; dated Camp Kollabarree, 31st March 1851.

Sir,

I HAVE the honour to enclose a copy of a letter from Mr. Price,* Superintendent of Government Cotton Cultivation. I cannot myself think the difficulties so formidable as they appear to Mr. Price.

I have, &c.
(signed) *H. Vetch*, Collector.

(No. 12.)

From *J. O. Price*, Esq., Superintendent Government Cotton Cultivation, to Captain *H. Vetch*, Collector of Luckimpore, Saikwa; dated 18th March 1851.

Sir,

I REGRET to inform you that as the season for cultivation advances our difficulties appear to increase since I last had the honour of writing to you. I have not been able to visit Dum Duma on account of the use of elephants here being always required for other purposes, neither have I yet received any reply to my application through the Commissioner for funds to commence operations with, but what is worse than all is the difficulty that we have in procuring labour; in fact, had it not been that the natives here are pushed at present for payment of their khazana, I do not think we should have been able to procure any coolies, but necessity has made a few hands accept of employment; however, I am afraid as soon as they get over their present difficulty they will leave us again, which convinces me that without getting coolies from some other part of Assam it is impossible for us to succeed here, and as the season is so far advanced I am of opinion, after giving the subject due consideration, and taking into account the difficulties that we have at present to contend with, that we will have to limit our proceedings this season to two small experiments, one here with Dherah Kupas, which is considered the best suited for this soil, and the other at Dum Duma with Dhaniah, which is the sort that succeeds best there; if we can get this effected it will enable us to test the soils of the two places at a comparatively small expense, and thereby enable us to go ahead on a more extensive scale during the next dry season with increased confidence.

2. The small farm here I am establishing, a short way up the Khall, where there is land that I will be able to clear off much easier than that on the road to Dum Dum, which I before reported favourably of, besides I will be able to take my boat up to that place during the rains, so that should I not have a house erected in time to live in, I will have it for that purpose, and go only occasionally to Dum Duma to examine the cultivation there, as I have been informed that it would be a most dangerous step to go and settle down there for good during the rains without the lands having been some time previously cleared off, with the disadvantage also of no medical assistance near to it; but these disadvantages we will, I hope, be better able to guard against next dry season; when proper coolies and other necessary arrangements have been prepared, we will be able to give the district a fair trial on an extended scale.

I have, &c.
(signed) *J. O. Price*,
Superintendent Government Cotton Cultivation.

(True copy.)
(signed) *H. Vetch*, Collector.

(No. 186.)

From Major *F. Jenkins*, Commissioner of Revenue, Assam, to Captain *H. Vetch*, Collector, Luckimpore; dated Gowahatty, 10th April 1851.

Sir,

I HAVE the honour to acknowledge the receipt of your letter, No. 69, of the 21st ultimo, forwarding copy of Mr. Price's letter, No 12, of the 18th idem, reporting his progress in the cultivation of cotton, and which I am sorry to say appears to me very discouraging.

2. If Mr. Price found so much difficulty in clearing his land &c., at Saikwah, I think it much to be regretted that he did not at once return to Dibrooghur when advised to do so by us during my visit to that station. I fear the Government is now throwing away money without

* No. 12 of the 18th March 1851.

I.

Bengal and
North Western
Provinces.

without even the hope of a fair experiment, but I should like to know more in detail what Mr. Price has done, what places he has visited, and what led him to prefer the neighbourhood of Saikwah; and when he has completed his sowings I would beg to be informed of the actual extent of land sown.

I should like also to have samples of the cottons called Dheerah and Dhaniah, with observations on the qualities in which they differ.

3. I beg to be furnished with all convenient expedition with a specimen of the cotton sanctioned to be cleaned in my letter, No. 646, dated 8th November last, with reference to yours, No. 649, dated 23d October 1850.

I have, &c.
(signed) *F. Jenkins*,
Commissioner of Revenue.

(No. 123.)

From Captain *H. Vetch*, Collector of Luckimpore, to Major *F. Jenkins*, Commissioner of Revenue, Assam; dated Debrooghur, 26 May 1851.

Sir,

I HAVE the honour to acknowledge the receipt of your letter, No. 186, of the 10th ultimo, directing me to call on Mr. Price for further information respecting the progress and extent of cotton cultivation, and requiring samples of the cotton of the country. I now beg to enclose copies of that gentleman's replies, No. 24 and 25, of the 19th and 20th instant, in which he reports very favourably as to the quality of the land at Saikwah, and also favourably on the quantity of the native cotton called Dherah. I also beg to forward two samples of cotton received from him.

I have, &c.
(signed) *H. Vetch*, Collector.

(No. 76½.)

From Captain *H. Vetch*, Collector of Luckimpore, to *J. O. Price*, Esq., Superintendent of Government Cotton Cultivation, Saikwah, dated Dibrooghur, 25 April 1851.

Sir,

WITH advertence to your letter, No. 12, of the 18th ultimo, I have the honour to annex a copy of a letter, No. 186, of the 10th instant, from the Commissioner of Assam, requesting further information on the subject of your operations, and calling for samples of the Dherah and Dhaniah cottons, as well as for the cotton purchased on account of Government, all of which information, and the samples adverted to, I request you will be so good as to send me for transmission to him.

I have, &c.
(signed) *H. Vetch*, Collector.

(No. 25.)

From *J. O. Price*, Esq., Superintendent Government Cotton Cultivation, to Captain *H. Vetch*, Collector of Luckimpore, dated Saikwah, 20 May 1851.

Sir,

I HAVE the honour of acknowledging the receipt of your letter, No. 76, of the 25th ultimo, enclosing a copy of the Commissioner's letter, No. 186, of the 10th April, requiring further information respecting our progress in the cotton experiment, and in which I regret to observe that the Commissioner thinks our progress very discouraging, but when he takes into consideration that we have not received any funds for cultivation, I hope he will think more favourably of our efforts, and particularly so, as far as our future prospects are concerned.

2. With respect to my selecting this neighbourhood for trying the experiment when it was left optional with me to select either of the other two places, Dum Duma or Debrooghur, if I thought I could succeed better there, I beg leave to state that I did so from being convinced from what I had seen of the lands in the neighbourhood of Debrooghur, that the lands adjacent to Dum Duma and Saikwah were both much better suited for the cultivation of cotton than those there, and with respect to the difficulties that it appeared to me at that time we would have to contend with, I found as I became more acquainted with this part of the country and its inhabitants, that with proper means we could easily overcome many of them, but not being in possession of that, we have had to contend with the worst of all difficulties in agriculture, want of funds.

3. I have

3. I have cleared off about 70 beegahs of woodland and jungle, and erected a strong fence round the greater part of it, which will be sufficient for the purpose of a small experimental farm until we can proceed on a larger scale with a certainty of picking a remunerative crop. I have also erected the necessary out-offices and a small bungalow for my own use, which is now better than half finished.

4. For some time after I arrived here I was unable to visit any place, in fact to leave my own boat, from severe rheumatism, but on my recovery I visited the several places where cotton was cultivated in the neighbourhood of Sudya, Dum Dum, Saikwah, as often as I could obtain an elephant to do so, which was only occasionally, but that I do not believe we have any reason to regret, as I am satisfied that I could not have found finer land anywhere than that in this neighbourhood, and in that part of Muttouk adjacent to Dum Dum.

5. In reply to the information required respecting the quantity of land sown, I beg to inform you that I purpose commencing to plant some acclimated American seed in a few days, but the quantity of exotic seed that we will be able to plant will be very limited, as the seed that was received from the Agricultural Society in tin boxes has lost all its germinating qualities, and also a great part of that which I brought up last year cannot now be depended upon, but I will have enough to try it as an experiment; the remainder of the land I purpose planting in June and July with Dhera seed, from the cotton that we are now cleaning, and when finished I will duly inform you of the quantity of land planted, and with our proceedings generally, which I only regret to add will, as a natural consequence, be very limited for a time, at least until Government may be pleased to enable us to proceed otherwise.

I have, &c.

(signed) J. O. Price,
Superintendent Government Cotton Cultivation.

(No. 24.)

From J. O. Price, Esq., Superintendent Government Cotton Cultivation, to Capain H. Vetch,
Collector of Luckimpore; dated Saikwah, 19 May 1851.

Sir,

I HAVE the honour of forwarding to you the samples of cotton required by the Commissioner, and I regret that I could not do so sooner, as I found it difficult to get a fair sample of the Dhanian kind, as it is picked in the months of August and September.

2. The kupas, called dhera here, is in my opinion much superior to the Dhanian kind, and sells at a higher price, being finer in staple, and altogether a better description of wool; it is planted in June and July, and picked in November and December; it is easily cultivated, and in my opinion, if fairly treated in the field, would be a very superior article to the generality of indigenous cotton. The cotton we have purchased, and are now cleaning, is of this description, out of which the sample is sent.

3. The Dhanian description of kupas is planted in March and April, among the dhan* that is planted in those months, and picked in August and September; it is used principally in making coarse cloths, and is inferior both in quality and price to the above description.

I have, &c.

(signed) J. O. Price,
Superintendent Government Cotton Plantation.

(True copies.)

(signed) H. Vetch, Collector.

(True copies)

(signed) F. Jenkins,
Commissioner of Revenue.

* Rice cultivation.

I.
Bengal and
North Western
Provinces.

GOVERNMENT Neej Cotton Cultivation.—Account for March 1851.

DATE.	NATURE OF TRANSACTION.	AMOUNT.
1851:	<i>Dr.</i>	
11 March -	To advanced the following named coolies, Muroo, Palon, Koornygam, Dhalow, Ohoura, Bogara, Pohur, Ratipohur, Gonack, Darjiling, Money, Lamyé, Goomhin, Jassuck, Poah, and Kougai, one rupee each -	<i>Rs. a. p.</i> 16 - -
- " -	" Kootack, coolie sirdar -	2 - -
15 " -	" Comsaw and Kartick, coolies, one rupee each -	2 - -
- " -	Paid for 135 bamboos to make godown mechan to keep cotton -	1 14 -
- " -	" For 11 wooden kerkies to clean cotton with, at four annas each -	2 12 -
- " -	" Capt. E. F. Smith for eight axes, at eight annas each, as per receipt -	4 - -
- " -	" For 20 pieces of mismie bagging cloth, at two annas each -	2 8 -
16 " -	Advanced Bagatee, Patol, Rouga, Petah and Metoo, coolies, one rupee each -	5 - -
17 " -	" Bogora, Lamyé, Pohur, Ratipohur, Poah, Money, Darjiling and Comsaw, coolies, eight annas each -	4 - -
- " -	" Holiram and Gum, coolies, one rupee each -	2 - -
- " -	Paid hire for dawk boat for bringing my chuprasée from Dibrooghur -	- 6 -
19 " -	Advanced Palow, coolie -	- 8 -
- " -	" Badle, Tiebung, Buddle, Doe, Joduram, Soug, and Soug Cluny, one rupee each -	7 - -
20 " -	" Bagaltee, Rattipohur, Comsaw, Rouga, Dhalan, Ohame and Karkick, coolies, eight annas each -	3 8 -
22 " -	" Dhoneram, Lawbur, Sring and Maymara, one rupee each -	4 - -
25 " -	" Kookaram, coolie, Abdool, Audit, Koonga, and Hindura, one rupee each -	5 - -
- " -	" Tong, coolie -	1 - -
26 " -	Paid hire of two dingees for five days for carrying thatching grass, at one anna per day -	- 10 -
- " -	Advanced Mahomed Jan, Codir, Osmat and Buddoo, coolies, three rupees each -	12 - -
31 " -	Paid Barret, burkundauz, from 1st January up to date, at five rupees per mensem -	15 - -
- " -	TOTAL Co.'s Rs. - - -	91 2 -
- " -	" F. P. King, Assistant, his salary unpaid - - -	50 - -
- " -	TOTAL Co.'s Rs. - - -	141 2 -

<i>Cr.</i>	<i>Rs. a. p.</i>
By Balance due to Mr. J. O. Price - - - - -	91 2 -
Ditto ditto Mr. F. P. King - - - - -	50 - -
TOTAL Co.'s Rs. - - -	141 2 -

Saikwa Government Farm, }
31 March 1851.

(signed) J. O. Price,
Superintendent Government Cotton Cultivation.

(signed) F. Jenkins,
Commissioner of Revenue.

GOVERNMENT Neej Cotton Cultivation.—Account for April 1851.

DATE.	NATURE OF TRANSACTION.	AMOUNT.
1851 :	<i>Dr.</i>	
2 April	To advanced the following named coolies, Palon, Bogora, Pohur, Samye, Hooliram, Comsaw, Pow, Maranga, Jassuck, Poah, Kookaram and Luchau, one rupee each	<i>Rs. a. p.</i> 12 — —
— ”	— ” Darjilling, Bakow, Patgano, Chow and Thoughlow, coolies, one rupee each	5 — —
5 ”	— ” Abdool, coolie	2 — —
— ”	Paid three Doom Mullas for 13 days bringing implements from Debroo, at two annas each per day	4 1 —
— ”	— ” Boat hire for same for 13 days, at one anna per day	— 13 —
6 ”	Advanced Bagatee and Kartick, coolies, one rupee each	2 — —
— ”	Paid Petah and Patol, coolies, for two days, at three rupees per mensem each	— 3 —
— ”	— ” Pesigam, coolie, for 1½ day	— 2 3
— ”	— ” Rootock, coolie sirdar, for five days, at four rupees per month	— 10 —
— ”	Advanced Money, coolie	1 8 —
9 ”	— ” Pur, Metoo, Lawhur, Sring and Doe, coolies, two rupees each	10 — —
— ”	— ” Sedaram, coolie	2 — —
— ”	— ” Pesigam, ditto	1 — —
— ”	Paid for dabbing the godowns tatees	— 3 9
10 ”	— ” For bamboos	— 8 —
— ”	Advanced Pan, coolie	1 8 —
— ”	— ” Hoo Bram, Ledungam, Lachye, Dhalan, Pohur, Budle, Dhomram, Palow, Comsow, Poah, Sedaram, Kalimohun, Pesigam, Metoo, Luchow, Patgano, 2d Pohur and Kookoram, one rupee each	18 — —
18 ”	— ” Bougal, Dhole, 2d Poah, Bhobogam, Ram, Juttee, Hindooram, Navot and Sonamdee, one rupee each	10 — —
21 ”	— ” Pominal, coolie	1 4 —
— ”	— ” Kookaram und Abdool, one rupee each	2 — —
— ”	Paid hire, coolie	— 5 —
— ”	— ” Ditto for mats	4 12 —
— ”	— ” Ditto for six mismie dows, at one rupee each	6 — —
— ”	Advanced Cadir, Buddoo, Osmot and Mahomed Jan, three rupees each	12 — —
30 ”	Paid Barret, burkundauz, his salary	5 — —
— ”	TOTAL Co.'s Rs.	102 14 —
— ”	— ” F. P. King, Assistant, his salary unpaid	50 — —
— ”	TOTAL Co.'s Rs.	152 14 —

<i>Cr.</i>	<i>Rs. a. p.</i>
By Balance due to Mr. J. O. Price	102 14 —
Ditto ditto Mr. F. P. King	50 — —
TOTAL Co.'s Rs.	152 14 —

Saikwa Government Farm, }
30 April 1851. }

(signed) J. O. Price,
Superintendent Government Cotton Plantation.

(signed) F. Jenkins,
Commissioner of Revenue.

GOVERNMENT ASSAM.—Cotton Experiment.

DATE.	NATURE OF TRANSACTION.	AMOUNT.
	<i>Dr.</i>	
11 October -	To paid Peroo Manjee for hire of his Panse boat for three months, conveying Government farming implements and cotton seed, &c. to Debrooghur, at 52 rupees per mensem, as per receipt - - - - -	<i>Rs. a. p.</i> 156 - -
31 December	" Barret, burgundaz, his salary from the 1st of July to the 31st December, at five rupees per mensem - - - - -	30 - -
21 January -	" Bhoronath, darogah, for purchase of a shed to store cotton, &c. in, as per receipt - - - - -	6 - -
- " -	" For coolie hire removing and erecting same - - - - -	4 - -
- " -	" For grass to partly re-thatch the roof with - - - - -	1 8 -
- " -	" For bamboos to make mechains for cotton - - - - -	1 - -
- " -	" For belt to tie mechan with - - - - -	- 8 -
- " -	" For eight pieces of mismie bagging, at two annas each - - - - -	1 - -
10 March -	" To Minchaud Keiah for 100 maunds of dhera Kupas, at Rs. 2. 12. per maund, as per receipt - - - - -	275 - -
	TOTAL Co.'s Rs. - - -	475 - -

1850:	<i>Cr.</i>	<i>Rs. a. p.</i>
23 December	By amount received for miscellaneous purposes - - - - -	200 - -
	Ditto ditto for the purchase of cotton - - - - -	275 - -
	TOTAL Co.'s Rs. - - -	475 - -
	By debit side brought over - - - - -	475 - -
	BALANCE - - -	- - -

Saikwa, 19 April 1851.

(signed) J. O. Price,
Superintendent Government Cotton Cultivation.

(signed) F. Jenkins,
Commissioner of Revenue.

No. 36. (No. 858.)
From the Under Secretary to the Government of Bengal to A. C. Bidwell, Esq.,
Officiating Secretary to the Board of Revenue.

Revenue. Sir,
I AM directed by the Deputy Governor of Bengal to acknowledge the receipt of your letter, No. 323, of the 27th ultimo, and to inform you that his Honor has been pleased, on the Board's recommendation, to authorise a further outlay of 1,259 rupees for the expenses of the experimental cotton farm at Muttuck, in Assam, under Mr. Price, to the end of December next. His Honor will expect a report of the result of this expenditure at the close of the present year.

2. The original enclosures of your letter are returned, copies having been kept for record.

I have, &c.
(signed) W. Seton Karr,
Fort William, 8 July 1851. Under Secretary Government of Bengal.

I.
Bengal and
North Western
Provinces.

EXTRACT Public Letter from Bengal, dated 28 August (No. 16) 1851.

Revenue Pro.
9 April 1851.
Nos. 25 to 28,
and order.

120. Under the representation submitted by the Board of Revenue, I obtained the sanction of the Government of India to the salary of the Assistant of Mr. Price, the Superintendent of the cotton cultivation, being raised from 20 rupees to 50 rupees during the period that Mr. Price's services might be required in Assam.

EXTRACT from the Proceedings of the Government of Bengal, in the Revenue Department, under date 9th April 1851.

(No. 525.)

No. 25.

From the Secretary to the Sudder Board of Revenue to *J. P. Grant*, Esq., Secretary to the Government of Bengal, Revenue Department; dated Fort William, 8 November 1850.

Sir,

I HAVE the honour, by direction of the Sudder Board of Revenue, to submit herewith a copy of a letter, dated the 24th ultimo, No. 271, from the Commissioner of Assam, and of one to his address from the Government cotton planter, and to recommend that the Assistant lately allowed to Mr. J. O. Price, in Dacca, at 30 rupees a month, may be employed in the same capacity in Assam, on a salary of 50 rupees.

Miscellaneous
Department.

Present:
E. M. Gordon and
H. Ricketts, Esqrs.

Sudder Board of Revenue.

I have, &c.
(signed) *Geo. Plowden*, Secretary.

(No. 271.)

From Major *F. Jenkins*, Commissioner of Revenue, Assam, to the Sudder Board of Revenue, Fort William; dated Gowhattee, 24 October 1850.

Gentlemen,

I HAVE the honour to forward a copy of a letter, No. 12, of the 19th instant, from Mr. J. O. Price, reporting that the assistant who was allowed him at Dacca, on a salary of 30 rupees a month, refuses to join him in Assam under 50 rupees a month.

2. Mr. Price told me he thought the person referred to would be of the greatest use to him in superintending the cultivation during his absence to inspect the country, or from sickness, or to be deputed to inspect ryots' cultivations; and as he was allowed an assistant at Dacca, I presumed the same aid would be granted him in this province, and I desired Mr. Price to write the individual in question, to know whether he was willing to come up or not, and I beg to submit the result of the reference for the Board's orders. An Assistant I should think likely to be very useful, especially in case of occasional illness, and I am sorry to see that Mr. Price is now labouring under an attack of rheumatism.

3. The salary seems moderate for one, who Mr. Price mentioned, was a very efficient Assistant; and I observe he writes English well. I would therefore recommend that Mr. Price be allowed to engage his services at 50 rupees a month.

I have, &c.
(signed) *F. Jenkins*,
Commissioner of Revenue.

I.
Bengal and
North Western
Provinces.

(No. 12.)

From *J. O. Price*, Esq., Superintendent Government Cotton Cultivation, to Major *F. Jenkins*,
Commissioner of Revenue, Assam.

Sir,

I HAVE the honour of enclosing you the reply that I received from my late Assistant at Dacca to the letter that I wrote to him by your direction, offering him 30 rupees per mensem to come up here and hold the same appointment that he formerly did under me. You will see what he says on that subject, and please let me know, at your convenience, your wishes respecting my employing him. He would be at considerable additional expense in coming up here, as he will still have to keep his house in Dacca for his family and his old grandmother, whom he supports.

I regret to inform you that I have been suffering most severely from rheumatism, first in my right arm, and latterly in my left knee, which is still very painful.

I have, &c.

(signed) *J. O. Price*,

Superintendent Government Cotton Cultivation.

(True copy.)

(signed) *F. Jenkins*,

Commissioner of Revenue.

Sudder Board of Revenue, Fort William,
8 November 1850.

(True copies.)

(signed) *Geo. Plowden*, Secretary

(No. 1199.)

No. 26.

From *W. Seton Karr*, Esq., Under Secretary to the Government of Bengal, to *W. Grey*, Esq.,
Under Secretary to the Government of India, Home Department.

Revenue.

Sir,

I AM directed by the Deputy Governor of Bengal to forward the accompanying letter from the Secretary to the Sudder Board of Revenue, No. 525, of the 8th ultimo, relative to an Assistant required for Mr. Price, superintendent of Government cotton cultivation, now on deputation in Assam.

2. As the individual whom Mr. Price had for his Assistant at Dacca has refused to proceed to Assam upon the salary of 20 rupees, which he received at Dacca, it is proposed to grant him a higher allowance of 50 rupees per mensem, in consideration of the distance he will have to go, and of the additional expense to which he will be put. Both the Board and the Commissioner recommend this, and his Honor submits the proposition for the sanction of the Government of India.

3. The usual tabular statement accompanies.

I have, &c.

(signed) *W. Seton Karr*,

Under Secretary to the Government of Bengal.

Fort William, 5 December 1850.

BENGAL REVENUE DEPARTMENT.

(No 27.)

Y E A R.		R E V E N U E S.		C H A R G E S.		T O T A L.		N E T.				
		Ordinary.	Extraordinary.	Ordinary.	Extraordinary.	Revenues.	Charges.	Surplus.	Deficit.			
Extract from Home Department, Government of India.	Office to which the Proposition refers.	N A T U R E O F C H A R G E S.		P R O P O S I T I O N.				Local Government's Recommendation.	Orders of the Government of India.			
		Present Scale.	Proposed Scale.	Permanent.		Temporary.				Casual, or Extraordinary.	G R O U N D S of PROPOSITION.	
				Increase per Month.	Decrease per Month.	Increase per Month.	Decrease per Month.					
No.	Date.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Period.	Period.	Rs. a. p.	Rs. a. p.	Remarks.	Remarks.	Orders.
		A writer	A writer	Rs. a. p. 50 - -	Rs. a. p. - - -	Temporary 30 - -	- - -	Rs. a. p. - - -	- - -			
	Superintendent of the Government Cotton Cultivation in Assam.									The writer, from his experience in Dacca under Mr. Price, will be of great assistance to that gentleman when in Assam; it is therefore proposed to secure his services on the increased salary of 50 rupees for such time as Mr. Price may be employed in that locality.	Favourable.	

Fort William,
5 December 1850.

W. Seton Karr,
Under Secretary to the Government of Bengal.

I.
Bengal and
North Western
Provinces.

(No. 313.)

From *W. Grey*, Esq., Under Secretary to the Government of India, to *W. Seton Karr*,
Esq., Under Secretary to the Government of Bengal.

No. 28.

Home Depart-
ment, Revenue.

Sir,

I AM directed, in reply to your letter, No. 1199, dated the 5th December last, with original enclosure (herewith returned), to convey the sanction of the President in Council to the raising of the salary of the writer employed under Mr. J. O. Price, Superintendent of the Government cotton cultivation, from 30 to 50 rupees per mensem, during the period that Mr. Price's services may be necessary in Assam.

I have, &c.

(signed) *W. Grey*,

Under Secretary to the Government of India.

Council Chamber, 28 March 1851.

Home Department, Revenue, 27 August (No. 13) 1852.

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

IN para. 2 of the despatch from this department (No. 17) 1843, dated the 16th December, your Honourable Court were informed that on the failure of the experiments made in the North-western Provinces for the production of cotton, under the superintendence of the American planters sent out by your Honourable Court, the services of one of them, Mr. Price, were engaged on a trial made for the improvement of the cotton of the Dacca district. The failure of this experiment was also reported to your Honourable Court in para. 8 of our despatch, No. 9, dated the 23d August 1850. Mr. Price has since been employed by the Government of Bengal in conducting another experiment made in the Muttuck country in Upper Assam, which has been attended with the same unfavourable result.

2. It is now proposed by the Bengal Government to abandon this undertaking, and to dispense with Mr. Price's services altogether; and as there appears to be no encouragement for persevering in these very unsuccessful and expensive experiments, we have directed that they be discontinued.

We have, &c.

(signed). *Dalhousie*,
F. Currie,
J. Lowis.

Fort William, 27 August 1852.

(No. 819.)

No. 4.

From the Under Secretary to the Government of Bengal to *A. R. Young*, Esq., Under Secretary to the Government of India, Home Department; dated Fort William, 5 August 1852.

Sir,

Revenue.

WITH reference to the letter, No. 38, from this office, dated the 11th January 1850, and to Officiating Secretary Mr. Grey's reply, No. 62, of the 25th idem, I am directed by the Honourable the Deputy Governor of Bengal to forward copies of the letters noted on the margin,* showing the result of the experiment instituted in the Muttuck country in Upper Assam, under the superintendence of Mr. Price, on the abandonment of the experimental cotton cultivation in Dacca in May 1850.

2. His

* From Secretary Board of Revenue, No. 182, dated 11th May 1852, with enclosure. From Secretary Board of Revenue, No. 226, dated 15th June 1852. From Secretary Board of Revenue, No. 243, dated 2d July 1852.

2. His Honor observes, that Mr. Price's employment since 1843 has been attended with great expense, and with no corresponding benefit to the country. He therefore concurs in opinion with the Board of Revenue that the experiment in Assam should be abandoned.

3. As Mr. Price, the superintendent of the cotton cultivation, has no claim whatever upon the Government, his services, his Honor thinks, might at once be dispensed with.

I have, &c.

(signed) J. W. Dalrymple,
Under Secretary to the Government of Bengal.

(No. 182.)

No. 5.

From the Secretary to the Board of Revenue, Lower Provinces, to J. P. Grant, Esq., Secretary to the Government of Bengal, Revenue Department; dated Fort William, 11 May 1852.

Sir,

WITH reference to the correspondence specified on the margin,* I am directed by the Board of Revenue to submit herewith a copy of a letter from the Commissioner of Assam, dated 13th ultimo, No. 76, and its enclosures, reporting on the issue of the experiment instituted in the Muttuck country, in Upper Assam, for the growth of cotton.

Land Revenue.
E. M. Gordon,
H. Ricketts and
E. Currie, Esqrs.

2. Mr. Price selected a locality at Saikwah for the site of his experimental farm, and the correspondence now forwarded shows that a sum of Rs. 9,489. 1. 5. has been expended upon the experiment. The cost of superintendence is heavy, and labour is extremely dear, and scarcely procurable, and the Commissioner is of opinion that unless the experiments are continued for some years nothing will be known as to the capability of that part of India to raise cotton fit for the English manufactures.

3. In regard to the experiment, so far as it has gone, the Commissioner considers it to have entirely failed in Muttock, and he would now recommence it at Tezporé, lower down the Assam valley, where labourers are more easily procurable. If the Government decide on renewing the experiment, he proposes that from 300 to 500 acres be taken up for growing native cotton and the most likely foreign kinds, and that the trial be continued for five or six years. The surplus seed to be distributed to two or three collectors to be simultaneously experimented on by them in different localities in their districts, under the instructions and occasional inspection of Mr. Price.

4. The Commissioner is fully persuaded that the limited and partial experiment hitherto made by Mr. Price will not, if continued, lead to any satisfactory results; and unless it be undertaken on a larger and more comprehensive scale, and under the immediate control and responsibility of the local collectors, he does not advise its continuance.

5. The Board have seen nothing as yet of the cotton grown at the farm, if any has been grown, nor has the Commissioner been furnished with any account of the produce of the farm; but a quantity of cotton (25 bales, said to contain 25 maunds and 25 seers), procured by Mr. Price on the spot, and cleaned under his superintendence, was lately sent to them by the steamer. The report of the Calcutta brokers on the article was, however, so unfavourable that it was deemed a useless expense to ship the cotton to England, as the Commissioner suggested, and it was sold in Calcutta by Messrs. Colin Campbell & Burgett, at Rs. 10. 4. the maund, which the Board believe is little more than the commonest native cotton would fetch. From a letter just received, the Board learn that the above 25 maunds were the produce of 84 maunds of raw materials purchased by Mr. Price for 231 rupees, and that the cost of cleaning, including the charge of transport to Gowhattee, was Rs. 249. 12. more, making the total cost Rs. 480. 12., or about 19 rupees the maund, without including the charge of conveyance from Gowhattee to Calcutta. The cost of production, therefore, of the article in its clean state, at the spot, is nearly double the price at which it sold in Calcutta.

6. The Board think it useless to incur any further expense on these experiments, and they recommend that the services of Mr. Price be dispensed with.

I have, &c.

(signed) C. H. Lushington, Secretary.

* Board to Government, dated 16 April 1850, No. 122; Government to Board, dated 27th Idem, 1850, No. 442; Government to Board, dated 28th June 1850, No. 618; Board to Government, dated 18th March 1851, No. 150; Government to Board, dated 9th April 1851, No. 464; Board to Government, dated 27th June 1851, No. 323.

(No. 76.)

From Lieutenant-Colonel *F. Jenkins*, Commissioner of Revenue, Assam, to the Board of Revenue, Lower Provinces, Fort William, dated Gowhatty, 13 April 1852.

Gentlemen,

WITH reference to your proceedings as per margin,* I have the honour to forward a copy letter from Captain Dalton, collector of Luckimpore, No. 107, of the 7th instant, submitting a report from Mr. Price on the cotton cultivation at Saikwah, and on the aptitude of the lands lower down for the growth of that article.

2. Mr. Price has only lately returned from a tour of inspection, which has been one cause of the delay in sending in this report, and a further delay has been occasioned by my being under the necessity of returning the report to Captain Dalton, who, in the first instance, transmitted it to me without any observations of his own. That deficiency has now been supplied.

3. From the latter part of the fourth para. of Captain Dalton's letter, that officer sums up the result of Mr. Price's proceedings at Saikwah by stating that though the soil there is well adapted to the cultivation of cotton, the place is too remote and labour too scarce and dear to allow of a fair experiment being made, and he therefore recommends the removal of Mr. Price's establishment to some other locality lower down the valley.

As in this proposition Mr. Price also concurs, and advises a trial in the neighbourhood of Tezpore, I have taken it upon myself to direct his taking measures to close his farm at Saikwah, and to proceed to Tezpore pending the further orders of the Board and Government; and I trust my letter to the Collector to this effect, No. 188, of this date, a copy of which accompanies, will meet with the Board's approval.

4. The first part of the fourth paragraph of Captain Dalton's letter mentions the expenses hitherto incurred in this experiment, viz., Rs. 9,489. 1. 5., but there is no information given in these letters to show what quantity of cotton has been planted or gathered by Mr. Price; but Mr. Price, in his third paragraph, supposes the Dherah cotton could be produced on the spot at Rs. 2. 8. a maund, and be sent into the market, cleaned, at from 10 to 12 rupees per maund.

5. I would not suppose it was expected that any cotton grown by Mr. Price could be raised at these prices, or, at least, not in the first two or three years of the experiment, for much time has necessarily been lost in choosing and clearing the ground, in collecting coolies and instruments, &c., and time has been likewise lost in obtaining the necessary advances; but an experiment of this kind, under a European superintendent, introducing new machinery at which the natives were to be taught, could not possibly succeed, except under a far greater outlay of money, and that continued for several years. The great objects of the experiment being, as I suppose, to conduct a series of experiments on the culture of both foreign and indigenous cottons, and to introduce amongst the natives an improved system of culture, and to distribute largely amongst them better kinds of seeds.

6. With regard to the trial of foreign seeds, I believe Mr. Price has been able to do nothing, from the want of dispatches of good fresh seeds of various kinds at the proper season (and the time of planting in a new climate cannot be ascertained in one or two years), Mr. Price's experiments have thus far been confined to the indigenous cotton, and the result of his experience is, that "the cotton of this district" (Muttuck) "would, if fairly tried, be better suited for the home market than any that (he) has seen in Bengal."

This is thus far, I think, satisfactory, and in recommending Mr. Price's making his experiments first in Muttuck, I was induced to do so by a belief that the cotton of the country was superior to the usual growth of other parts of the lower and eastern provinces.

7. His experiments have been an entire failure hitherto, as far as attempting to grow foreign cotton seeds, and to distribute them, and to introduce improved methods of cultivating them amongst the natives; and it appears to me that without such measures be not only tried by one or two years' experiments, but continued for some years, nothing will be known as to the capability of this part of India to raise cotton fit for the English manufacturers.

8. In removing to Tezpore, Mr. Price will be equally able to obtain land costing nothing to the Government, as at Saikwah, and he will have the advantage of being much nearer Calcutta, which, as regards the importation of fresh foreign seed, will be of great importance, and he will be able to obtain labour at a cheaper rate.

As for the distance from a seaport, I do not think that would be of any great consequence in any part of Assam with such a river as the Burhampootur; the downward freight would be of little importance could it be shown that the province could grow cottons fit for the English market at cheap rates.

9. Should the Board and Government be pleased to continue the experimental culture of cotton under Mr. Price, at Tezpore, I should be inclined to recommend that he be allowed to cultivate from 300 to 500 acres, with native and the most likely foreign cottons, and that the trial should be continued for five or six years, the cotton grown at his farm being prepared under his superintendence for exportation in the most careful manner, and the surplus seed

* No. 86, dated 11 July 1851, and its enclosures from Government.

seed being distributed to two or three collectors, to be partly cultivated by them, as suggested by Captain Dalton, in his fifth paragraph, under the instructions and occasional inspections of Mr. Price, and the rest to be distributed to such natives as would undertake to cultivate them with some care and under the methods suggested by Mr. Price.

10. In the full persuasion that the limited and partial experiment hitherto made by Mr. Price would not, if continued, lead to any satisfactory results, should the Most Noble the Governor not be prepared to allow of their being undertaken on a larger and more comprehensive scale, and under the immediate control and responsibility of the local collectors, I would not recommend their continuance.

I have, &c.

(signed) *F. Jenkins*, Commissioner of Revenue.

(No. 107.)

From Captain *E. T. Dalton*, Collector of Zillah Luckimpore, to the Commissioner of Revenue, Assam, dated Dibröoghur, 7 April 1852.

Sir,

WITH reference to your letter, No. 164, of the 29th ultimo, I have the honour to re-submit Mr. Price's report (No. 5, of the 7th February last), on the result of his experiments in cotton cultivation at Saikwah, upon which my own opinion is required.

2. Mr. Price, on coming up here, appears to have very soon decided upon Saikwah as the site for his experiments; the ground he selected there for his farm is an alluvial deposit of the Brahmapootur, and considering that to obtain such a soil he need not have gone so far, I am not aware what advantages could have been expected which induced him to commence his experiments in a part of the country so remote, and where labour is so scarce and so dear. Doubtless the good quality of the Muttuck indigenous cotton led to this part of Assam being selected, but though I am aware that very good cotton is raised by the Meerees on alluvial flats near the Brahmapootur, I believe the greater portion of what is exported as Muttuck cotton is grown on the undulating uplands of that country, the soil of which is very different; reddish, but not a stiff red clay, being light and friable. For experiments on a soil of this nature there are perhaps as good positions to be found in the vicinity of Dibröoghur as elsewhere, but here labour, though procurable to a limited extent, is dearer than it is in Central Assam; and as the higher up the river the experiment is tried the greater the expense of exportation, as well as of growth and manufacture; and as the Superintendent, after examining the available tracts in the Tezpore district, is of opinion that the soil there is as well adapted for the cultivation as it is here, I am of opinion, if the experiment under Mr. Price's superintendence is to be continued at all, that it should be removed there.

In noticing the expense of this experiment hitherto, and comparing it with the results obtained, it is proper to observe that no advances having been sanctioned for the monthly expenses of the farm, Mr. Price worked for some time on his own responsibility, and from his own resources, and his operations were necessarily on a limited scale; but this is not now to be regretted, as had a large outlay been made, it would only be to have paid more to ascertain that Saikwah was not the place where the experiment should have been commenced.

From March 1851 to February 1852 the bills submitted by Mr. Price for the monthly expenses of the farm amount to *Rs.* 897. 6. 9., besides which he received for purchase of 100 maunds of cotton 275 rupees, and for cleaning the same *Rs.* 249. 12., making a total of *Rs.* 1,422. 6. 9., in addition to his own salary of 450 rupees per mensem, and the salary of an Assistant for the portion of the time; Mr. Price's pay from June 1850 to January 1852 amounts to 7,650 rupees, and the total sum drawn for the Assistant to *Rs.* 216. 10. 8., to which must be added 200 rupees paid for conveyance of implements for the farm, so the total expense has been *Rs.* 9,489. 1. 5. I have not yet received any intimation from Mr. Price in regard to the quantity of cotton raised, or how much he may eventually clean and transmit, nor have I heard the result of the examination by Calcutta brokers of the cotton already sent down, but the whole outturn will not, I apprehend, be of much moment; and, independent of this, the result obtained as regards Saikwah is as follows:—

That the soil is well adapted for the cultivation of cotton, but that labour is at present too scarce and dear to admit of its being cultivated there and prepared for the market with any chance of success or profit.

I consider this to be the case in regard to Saikwah, and I therefore recommend that the farm there be closed at once; and satisfied with the results obtained, I do not think it should be recommended in any part of Upper Assam.

At the same time, should the Government wish it, it will be very easy for the local officers to carry on the experiments as far as regards the fitness of soils in their respective districts at a small expense, and I shall be very happy to try it here. Mr. Price might re-open his farm at Tezpore as the position he now considers best adapted for the purpose, and the officers in charge of districts, and their detached Assistants, might superintend the raising of cotton, indigenous and exotic, in different localities, and send the raw cotton to Mr. Price's factory to be cleaned and forwarded with the joint produce of all the districts of Calcutta.

I.
Bengal and
North Western
Provinces.

I beg to annex herewith copy of a paper on the experimental cotton cultivation submitted to Captain Vetch, with a letter, No. 4, of the 23d January 1851, as there is nothing in the office to show that a copy of this document was previously laid before you, and the remarks appear to bear well on the results obtained and reported on by Mr. Price in the accompanying letter.

I have, &c.
(signed) *E. F. Dalton*, Collector.

(No. 5.)

From *J. O. Price*, Esq., Superintendent of Government Cultivation, Assam, to Captain *E. F. Dalton*, Collector of Luckimpore, Saikwah, 7 February 1852.

Sir,

I HAVE the honour of informing you, for the information of Government, that I have been employed for some time past in examining other parts of Assam, for the purpose of obtaining the information required by Government respecting labourers being procurable, and at what cost, &c., which I was prevented from doing on the receipt of the instructions I received through Captain Vetch to that effect in August last, by the state of my Assistant's health obliging him to leave the district, and by my not being able to procure another person to fill his appointment; I was obliged to remain on the farm until the month of December, by which time I was enabled to judge of the result of the present experiment, which was very promising, as far as respects the indigenous kind of cotton, up to the 1st of October, during which month the heavy rains we had were most injurious to it, so much so that nearly all the forms of flowers on the early planted part of the farm were destroyed, but the late planted field in a great measure escaped, and yielded a fair crop for the quantity of land. The Meeree tribe, who are the principal growers of the Derah kupas in this neighbourhood, I am sorry to add, have been severe sufferers; they inform me that they have not picked one-fifth the quantity they did in the previous years off the same quantity of land, and from what we have suffered here I believe they do not much over-rate their loss.

2. On the 20th of December I proceeded down the Brahmapootur to the Dikho, on which stream I first commenced my inquiries, being aware that labourers were not procurable to any extent further up the valley; and there only, I found, by bringing coolies up from Durrung and Nowgong districts at Rs. 3. 8. per month; the soil in this stream, as far as I had an opportunity of examining it, appears generally of too stiff a nature for cotton cultivation; from thence to the Dhunseeree River I next proceeded, where I found labourers would be more easily procured, and at three rupees per month. On this stream there is a variety of soil, some of which is well suited for the growth of cotton. I next proceeded to Tezpore, where I found labourers not only easily procured, but also at a very cheap rate, from Rs. 2. 8. to Rs. 2. 12., being the usual price of able coolies per month, so much so that Captain Reynolds kindly authorised me to state that, if the cotton experiment was tried in that part of Assam, he would supply Government with whatever number of coolies might be required. I had an opportunity also of examining well the lands in that neighbourhood through the kindness of that gentleman allowing me the use of his elephants for that purpose, by which I am enabled to state that I have not seen finer alluvial lands in any part of Assam than what is in that district; I am therefore encouraged to hope, that if Government continues the experiment, that it may be induced to remove it to that part of the country, where such advantages are available, and more particularly so as I am now fully convinced that it is useless to expect cotton cultivation to succeed here to any useful extent for some years yet, or at least until labourers are more plentiful in Upper Assam; in fact, the expense of cleaning cotton by the kirkee here at once prevents the kupas of this part of Assam from ever entering the market in any other state than in an uncleaned one, but by removing the experiment to Central Assam, one-half at least of that expense would be saved; besides, I cannot see anything to hinder the Derah kupas from succeeding as well at Tezpore as here, if proper seed was introduced there.

3. With respect to the information required regarding the cost that Derah cotton could be produced at in Assam, with reference to the small experiment we have tried here, I beg leave to inform Government, that from the unfavourable season last year proved,—and only having cultivated here one year,—I am unable to answer that question with any certainty, as the expense of clearing off woodland and preparing the land afterwards for seed, would at least cultivate the same land for the following three years, the crops of which would have to account in some measure for the heavy expense incurred the first year; but I should think, with fair seasons, after the land was once cleared, it might be produced for Rs. 2. 8. per maund, which, with anything approaching to effective machinery to clean it with, would bring it into the market at a cheap rate, say from 10 to 12 rupees per maund, as the quantity of wool to that of seed is much in its favour.

4. I regret much that I am unable to report more favourably of the result, so far, of the exotic seed we have received; but the reasons are obvious, namely, that of the first seed we received having lost nearly all its germinating qualities when it reached us, so that only a few sickly plants came up, and never yielded anything; and the other seeds that were received in October and November were quite too late for this climate; still I planted a part of them in hopes the winter might prove mild, and to see if the exotic kinds could stand the cold

cold of this climate. Most of the seed vegetated well, but the extremely cold nights of January scarcely left life in any of it; so that I am afraid we are too near the snowy hills for that kind to succeed well, at least with late planting; I am therefore led to believe that either Central or Lower Assam would suit the cultivation of exotic cotton better than this part of the province.

I have, &c.

(signed) *J. O. Price,*
Superintendent of Government Cotton Cultivation, Assam.

I.
Bengal and
North Western
Provinces.

REMARKS respecting the Circumstances of greatest importance, in connexion with the Experimental Cotton Cultivation.

THE land in this district is much better suited for the cultivation of cotton than any that I have previously examined in India.

2. The climate I also consider favourable, were it not for the extreme coldness of the night during the winter season, which, render the seasonable showers and the humidity of the climate, unavailable for cotton cultivation during that season of the year.

3. Wages for labour very high, and only to be got at particular seasons of the year.

4. Labour not procurable at the seasons when we would most require it; in this respect either Lower or Central Assam would be better suited for an experiment of this kind.

5. The great distance that this place is from Calcutta will naturally occasion the carriage to be expensive in this respect. The nearer the experiment could be tried to Gowhatty the better, on account of steam communication.

6. The want of efficient machinery to clean the native cotton with is, in my opinion, the principal preventive to the country's supplying England with cotton at as cheap a rate as America possibly can, and I trust we may soon hope to see that want remedied.

7. The cotton of this district would, if fairly tried, be better suited for the home market than any that I have seen in Bengal; but the present system adopted by the natives here would ruin any cotton, both in strength and appearance.

8. With regard to our procuring a sufficient quantity of cotton, which must be very considerable to be of any use to the English market, the experiment, in my opinion, should be situated where a depôt for receiving and purchasing cotton could be most advantageously established, and at which place efficient machinery, both for ginning and pressing cotton, could be erected; which leads me to think that the experiment should be situated lower down in Assam, as there is very little cotton grown above this place, at least for sale, nor can we expect cotton to be brought up the river; but, on the contrary, if the experiment was established lower down the stream, the latter description of cotton could be easily purchased in this part of Assam and elsewhere, and floated down the stream to where the farm was, and there prepared for the home market; by which means only, I think, a large enough quantity could be procured. Besides, if situated where there was any number of ryots, the cultivation could be increased by ryottee cultivation, and introducing the seed from this part of Assam down there, which no doubt will grow well in any part of Assam.

(signed) *J. O. Price.*

(No. 188 of 1852.)

From the Commissioner of Revenue, Assam, to Captain *E. T. Dalton*, Collector, Luckimpore, dated Gowhatty, 13 April 1852.

Sir,

WITH reference to your letter, No. 107, of the 7th instant, forwarding your remarks on Mr. Price's report of the 7th of February last, as both Mr. Price and yourself consider the experiment at Saikwah to be in great measure a failure, and advise a removal to Tezpore, I beg to request you will direct Mr. Price to take early measures for closing his cultivation at the former, and removing down to the latter place.

2. Should Mr. Price have any crop on the ground, you will be so good as to give instructions to some local officer to take charge of the farm, and place at his disposal the necessary means for cleaning and gathering the crop, under the directions which Mr. Price will be good enough to give him; so that the cotton and seed may be saved, the former for transmission to the Board, and the latter to be distributed in such manner as you may think most advantageous.

I.

Bengal and
North Western
Provinces.

3. Mr. Price, as soon as possible, should remove with all his instruments and machinery to Tezpoore, and place himself in communication with Captain Reynolds, for the purpose of selecting an eligible spot for further experiments, subject to the orders of the Board and Government.

I have, &c.
(signed) *F. Jenkins*,
Commissioner of Revenue.

Board of Revenue, Lower Provinces,
Fort William, 11 May 1852.

(True copies.)

(signed) C. H. Lushington, Secretary.

(True copies.)

(signed) J. W. Dalrymple,
Under Secretary to the Government of Bengal.

No. 6.

(No. 226.)

From the Secretary to the Board of Revenue, Lower Provinces, to *J. P. Grant*, Esq., Secretary to the Government of Bengal, Revenue Department; dated Fort William, 15 June 1852.

Sir,

Land Revenue.
F. M. Gordon and
H. Ricketts, Esqrs.

IN continuation of my letter, No. 182, dated the 11th ultimo, I am directed by the Board of Revenue to submit herewith a copy of a letter from the Commissioner of Assam, dated the 18th ultimo, No. 109, and its enclosures, relative to Mr. Price's proceedings in connexion with the experimental cotton farm at Saikwah, and to state that the Board find nothing in this correspondence to induce them to recommend any further outlay on the experiment.

2. The Board solicit early orders in their letter above referred to, the Commissioner having reported the arrival of Mr. Price at Tezpoore, whither he has proceeded, under instructions from the Commissioner, for the purpose of selecting a site for a new farm.

I have, &c.
(signed) *C. H. Lushington*, Secretary.

(No. 109.)

From Lieutenant-colonel *F. Jenkins*, Commissioner of Revenue, Assam, to the Board of Revenue, Lower Provinces, Fort William, Gowhatty, dated 18th May 1852.

Gentlemen,

WITH reference to my letter, No. 76, dated 13th ultimo, I have the honour to transmit a copy of a further letter, No. 129, dated 13th ultimo, from the Collector of Luckimpore, and its enclosures, from Mr. Price, relative to his proceedings connected with the experimental cotton farm from its commencement.

2. I beg to call attention to the detailed reports now presented by Mr. Price, and the remarks of the Collector, Captain Dalton, on the result of the Superintendent's operations.

These, I think, confirm the propriety of the removal of the experimental farm from Saikwah, though there is, I think, little reason for supposing that under more favourable circumstances, and especially in a drier season, the soils and climate of Muttuck would be found unsuitable for the growth of exotic cotton.

It might be the case that the introduction of them might require some years to acclimatise the plant, and it might at best be inferior to the best qualities grown in America, but still the probability is, that the country which is found to produce a superior indigenous cotton would be capable of yielding a far superior article than that native cotton, with a trial of selected seeds, and the substitution of the modes of culture under European skill and science to the very rude farming of eastern Assam.

3. It appears that Mr. Price has in hand, which will be shortly forwarded to the Board, 45 maunds of the native Dhera cotton, grown on the Government plantation, which he hopes will be found superior to that already transmitted to the Board, and which, as before stated, was bought of the natives from their own crops.

In my letter of the
19th April, No. 83.

4. Mr. Price has laboured under considerable difficulties, and I do not consider that the result of his experience in Upper Assam is at all conclusive of the aptitude of the country for cotton cultivation; and I would therefore again beg to recommend that the Collector, Captain Dalton, be allowed to continue a small experimental cultivation under his own immediate superintendence in the vicinity of Dibrooghur, under advice from and in consultation with Mr. Price.

With

With regard to this gentleman's further employment, I have again to request the orders of the Board and Government, reminding the Board of my former recommendation that experimental cultivation of cotton must be undertaken on a much larger and more liberal scale, or else, to the best of my judgment, the result will be altogether unsatisfactory, and deceptive to those who are concerned in the great question whether India can produce cotton fit for the English manufactories.

I have, &c.
(signed) *F. Jenkins*,
Commissioner of Revenue.

(No. 129.)

From Captain *E. T. Dalton*, Collector of Luckimpore, to Colonel *F. Jenkins*, Commissioner of Revenue, Assam; dated Dibröoghur, 30 April 1852.

Sir,

I HAVE the honour to return Mr. Price's general report on his proceedings from the commencement of the experimental cotton farm in this district, sent to me for my opinion, with your letter, No. 175, of the 7th instant.

2. I have, since the receipt of this document, communicated with Mr. Price in regard to some points upon which information appeared to me to be required, and I beg to submit, as an appendix to his report, a copy of his reply.

3. My own opinion on the experiment, derived from such knowledge of Mr. Price's sentiments and proceedings as I then possessed, I had the honour of submitting to you, in a letter, No. 107, of the 7th instant; and though Mr. Price's views are now before me at greater length, I have little to add to what I have already expressed.

4. It appears that Mr. Price was led to select Saikwa as the best site for opening his farm, from the estimation that the Dhera cotton, the best of the indigenous sorts grown there or in that vicinity, was held in by the native traders of this part of Assam who purchased for exportation.

5. Mr. Price commenced operations in the month of March 1851, and by the 1st June had cleaned about 70 beegahs of land. He was engaged till the 31st August in sowing a portion of this with foreign seed, but, owing apparently to the badness of the seed, without success. He therefore turned his attention to the cultivation of the best kind of indigenous cotton, the Dhera, and planted at different periods (from 20th June to 15th August) about 50 pooras, adopting the native mode of cultivation. This crop promised well till October, in which month that first planted, and then in flower, suffered greatly from the heavy rains, but that sown later produced well, and from it Mr. Price has collected 45 maunds of cotton, which he has on hand. This cotton he has been careful in gathering, and he purposes preparing it himself, that its qualities may be properly tested.

6. If the experiment results in bringing to notice as a superior kind of indigenous cotton the description called Dhera, it will not have been fruitless; sufficient has perhaps been done to point out to capitalists with what prospect of success its more extended cultivation in this part of Assam might be attempted; or if any further information on the subject be required by the Government, it can easily be collected and furnished by their own officers, without incurring further expense in experiments.

7. In regard to exotic cottons, Mr. Price is of opinion that the climate is too damp for the successful cultivation of those he has had opportunities of trying, but I am now, from all that is before me, far from thinking that the exotic kinds had a fair trial. Mr. Price, in his letter, No. 21, of the 26th instant, to my address, para. 5, admits that the rich soil in Muttuck is likely to be the best adapted to the foreign kinds; but that soil, it will be observed, has not been tried. Owing, he says, to the difficulties in procuring funds, Mr. Price could not commence operations soon enough to enable him to make any experiments on the lands in the vicinity of Dum Duma, which he had visited, and selected as a good locality for farming operations on a secondary soil, in conjunction with his operation on the alluvium at Saikwa. I think it is to be regretted that these lands were not tried, but as Mr. Price is of opinion that Tezpore is a better locality for further experiments, I have not, on this account, recommended their continuance under his superintendence in this district; but I earnestly beg attention to the proposal contained in the concluding portion of my letter of the 7th instant, for the continuation of experiments in the cultivation of exotic cotton under my own superintendence, or that of my assistants, sending the produce uncleaned to be prepared for the market by Mr. Price on his experimental farm at Tezpore.

8. Of course, if sufficient be known of the climate to pronounce it unfavourable to the growth of foreign cotton, it is useless trying it on another soil; but I do not think that the experience of one season is sufficient to pronounce authoritatively on this subject, and Mr. Price has himself declared that the only season he has known here was considered by the native cultivators of cotton to be a peculiarly unfavourable one.

9. Therefore, whilst I recommend that the head-quarters of the experiment be removed to a locality where labour is cheaper and more plentiful, climate somewhat milder and land

I.
Bengal and
North Western
Provinces.

I.
Bengal and
North Western
Provinces.

as abundant as it is here, I hope I may be allowed the means of continuing experiments on a small and inexpensive scale here; and if I am provided with seed, and foreign cotton will grow in Muttuck, it is possible I may be able to introduce it generally amongst the native cultivators, though, like all illiterate agriculturists, they are peculiarly averse to innovation.

I have, &c.

(signed) E. T. Dalton, Collector.

(No. 18.)

From J. O. Price, Esq., Superintendent of Government Cotton Cultivation, to Lieutenant Colonel F. Jenkins, Commissioner of Assam; dated Saikwah, 30th March 1852.

Sir,

I HAVE the honour to submit to you, for the information of Government, a report of my proceedings from the commencement of the experimental farm in this district.

2. In the first place, I beg leave to acquaint Government with the system of cultivation that it is necessary to pursue here, so as to grow cotton to advantage, on account of the state of the country and the climate. No cleared land being available here suited for the growth of cotton, it is necessary to commence clearing of wood land as early in the month of January as possible, so as to get as much land as is required cleared and burned off by the 1st of March early, in which month a crop of dhan* (called doomrahhere,) is planted, which not only helps to repay the expense of clearing the land, but also keeps it clear of weeds until the month of June, when the dhan crop is reaped, and dherah kupas seed planted on the land during that and the following month; this system, I regret to add, we are not enabled to take advantage of on account of not having funds available at a proper season to do so, occasioned by the Commissioner of Assam not having been empowered to sanction the necessary advances when required, as I had hoped would have been the case.

3. The month of March having commenced, and not having received any advances for cultivation, I considered I would be best serving Government (as the season was as far advanced) by making some advances to commence operations with until we could receive funds from Government for that purpose; with which view I engaged as many coolies as I could procure, and employed them from that time until the 1st of June in felling wood land, and in clearing and burning it off when the weather would admit of their being employed in that way, and when otherwise in getting posts and bamboos, and thatching grass, &c., for the purpose of erecting a small bungalow for my own use, and such other houses as we required for my Assistant's use and otherwise; but the frequent rains retarded our work greatly, and occasioned the cleaning off the wood land and jungle to be both tedious and expensive, otherwise I was in expectation of having had a hundred beegahs cleared off, instead of which I could not get more than 70, on account of the great expense and difficulty we had in getting coolies.

4. From the 1st of June until the 31st of August the coolies were employed as follows: early in June I commenced knocking land, and preparing it for exotic cotton seed that I brought up from Dacca with me, although on examining the seed I found it had suffered much from having been so long in this damp climate; still I was in hopes that by planting it thickly that I might get a sufficient number of plants to procure seed from, but in this I was disappointed, as only a few seeds out of all that I planted vegetated, and from the weakness of the plants have never yielded anything; but soon afterwards I received a number of tin boxes of American seed from the Agricultural Society, which I hoped would have been better; but on opening the boxes the seed appeared to be very old; still in hopes of getting seed from it, I planted the greater part of it, but with as little success as I had from the former sowings. I therefore turned my attention entirely to the cultivation of the best kind of indigenous cotton that we have here, and continued preparing the land and planting the dherah kupas seed at different periods from the 20th June till 15th of August, for the purpose of seeing how early and late it might be safely planted in case of a large crop being required, all of which vegetated well; but unfortunately I was only able to plant 50 beegahs out of the 70 that I had cleared on account of the state of starvation that the coolies and natives in general were suffering from at that time from a want of rice in this part of the country, so much so that it frequently was not procurable at any price; and when a small native boat did arrive with rice, it was sold at so high a rate that a cooly's pay would not supply him and his family with one-half the food they required; the consequence of which was, that they were obliged to employ the greater part of their time in searching for wild yams in the jungle, and collecting any wild herbs that they could use as a sag; indeed such was the state of hunger that they were suffering from, that though often willing to go to work, they were unable to do so, and in this manner the planting season passed away, for which we had no remedy.

5. During the following three months, September, October, and November, the work was very light, as it was then too late for planting, so that the few coolies that had returned to work were engaged in weeding and thinning the young plants out, which is particularly required with dherah kupas, as it is sown broadcast, and not planted in rows or steps like other

* Rice cultivation.

other cotton. The appearance of the cotton field was very promising until about the 13th of October, from which time the intense rains we had that month were very injurious to the early planted part of the field, stripping it almost entirely of the young forms and flowers with which it was covered at that time; but the later planted part did not suffer much, as it did not commence flowering until about the time that the rain ceased; it therefore continued growing and improving much during the month of November, which was very seasonable. During this month I prepared some land, and planted a part of the exotic seed that I had lately received of two kinds, one a black, smooth-skinned kind, resembling Sea Island seed, and the other American, the former of which vegetated uncommonly well, but the latter only partially.

6. The coolies were principally employed during the months of December and January in picking cotton, which I was particular in having taken from the trees without allowing to be exposed to the weather, in hopes of getting a stronger fibre with it than with that which was bought from the natives and cleared by me, as they are in the habit of exposing their cotton very much to the weather, so that they are enabled to pick all in at one time; to effect which the early bolls are allowed to fall off the tree, and remain so until the late bowls are fit for gathering, so that the early and best cotton must be much bleached and weakened in staple. I have now got about 45 maunds of cotton grown on the farm, which I would like to be carefully cleaned and forwarded for inspection, as I am in hopes its fibre will be found much stronger than that which was formerly sent. The exotic seed which I planted in November has suffered much from the coldness of the weather during the last two months, from the effects of which much of it has died away; but there are still some of it left, which is now recovering, and from which in due time some seed may be got if it is taken care of.

7. In concluding this report, I cannot refrain from expressing my regret that we should have had so many difficulties to contend with in the first year of the experiment in Assam, and particularly so that we should have been so fortunate with the exotic seed; although it is my opinion at present that the immense quantity of rain that falls here, and the intense coldness of the weather during the months of December and January, will prevent that description of cotton from ever succeeding well here; but, on the contrary, should the wool of the dherah kupas be found suitable for the English market, it can bear any quantity of rain up to the 1st October, after which it is most destructive to it, and from which we suffered so much last season; but it is to be hoped that such another October will not visit this part of the country for some years to come, otherwise the natives will stop planting dherah kupas, and grow cotton of an inferior kind, which is not so easily injured; but, unfortunately for us, we have not only the season to contend with, but the want of labour also, which is only procurable in a very limited extent at any time, which convinces me that Central Assam is altogether better suited for an experiment of this kind; and that for several reasons, such as labour plentiful and cheap, with equally fine cotton land, seasons more regular, and the saving of a long, dangerous, and expensive water carriage, which should be avoided as much as possible on account of the bulky description of produce that cotton consists of.

I have, &c.

(signed) *J. O. Price,*

Superintendent of Government Cotton Cultivation, Assam.

(No. 21.)

From *J. O. Price, Esq.,* Superintendent of Government Cotton Cultivation, Assam, to
Captain E. T. Dalton, Collector of Luckimpore; Saikwah, 26 April 1852.

Sir,

I HAVE the honour of being in receipt of your letter, No. 111, of the 20th instant, and the accompanying letter from the Commissioner of Assam, the instructions conveyed in which respecting my report shall be attended to.

2. In reply to the information that you required respecting the cotton that is in hand, I beg to inform you that it has not yet been cleaned, and that the principal obstacle to its being cleaned was the want of an advance to do so with, which I deferred applying for until I could get the former accounts adjusted.

3. Respecting the exotic seed that was planted in November, I am glad to inform you that the plants that withstood the cold weather are now looking healthy, but will not bear any cotton worth picking, I expect, before the dry season commences again, although it will likely give flower and bear some bolls previous to that time. I will leave particular directions for the management and care of it, as I agree in opinion with you, that it would be very desirable to get a little seed from it.

4. I am sorry to tell you, that I had not an opportunity of making any experiments on the lands in the vicinity of Dum Duma, from the lateness of the season before I could determine what was to be done, on account of the difficulty in getting funds to commence the experiment.

1.
Bengal and
North Western
Provinces.

5. As respects the soil best adapted for the cultivation of dhera kupas, it is my opinion that the alluvial land is the best suited for its growth, and as a proof of it, I find the cotton grown on the sandy alluvial soil about Saikwah is much preferred by the kyale to that grown on the higher lands in Muttuck. I look upon the rich soil in Muttuck as being better suited for the growth of exotic cotton, but it would require a favourable season for it to succeed well; we have had a great deal too much rain for the growth of it here, since I have been situated in Assam.

6. I had not tried any experiment with the dhera kupas here, as I found it to be an inferior cotton, and much mixed, although apparently a strong-fibred cotton, when not too much exposed to the climate before being picked from the shrub.

I have, &c.

(signed) *J. O. Price*,
Superintendent of Cotton Cultivation, Assam.

Board of Revenue, Lower Provinces,
Fort William, 15 June 1852.

(signed) *C. H. Lushington*, Secretary.

(True copy.)

(signed) *J. W. Dalrymple*,
Under Secretary to the Government of Bengal.

(No. 243.)

No. 7. From the Secretary to the Board of Revenue, Lower Provinces, to *C. Beadon*, Esquire, Officiating Secretary to the Government of Bengal, Revenue Department; dated Fort William, 2 July 1852.

Sir,

Land Revenue. WITH reference to the second paragraph of my letter, No. 226, dated the 15th ultimo, I am directed by the Board of Revenue to submit, for the consideration and orders of the Most Noble the Governor of Bengal, copies of two letters from the Commissioner of Assam, Nos. 131 and 134, dated the 14th and 16th ultimo respectively, and their enclosures, the former soliciting sanction to the disbursement of Rs. 51. 4. 9. on account of expenses incurred in removing the Government farming implements from the cotton farm at Saikwah to Tezpore, and the latter to an advance of 150 rupees made to Mr. Price, to enable him to commence the experimental cultivation of cotton at Tezpore.

2. Should the services of Mr. Price be dispensed with, as recommended in my letter of the 11th May last, No. 182, the Board suggest that the collector might be directed to superintend the little plantation at Tezpore for the year.

I have, &c.

(signed) *C. H. Lushington*, Secretary.

(No. 131.)

From Lieutenant-Colonel *F. Jenkins*, Commissioner of Revenue, Assam, to the Board of Revenue, Lower Provinces, Fort William; dated Gowhattee, 14 June 1852.

Gentlemen,

WITH reference to paragraph 3 of my letter, No. 76, dated 13th April last, I have the honour to transmit a bill* for Rs. 51. 4. 9. expended in the removal of the things attached to the cotton farm from Saikwah to Dibrooghur, and from thence to Tezpore, and with reference to the expenditure being unavoidable, I beg to recommend that it be passed by the Board.

I have, &c

(signed) *F. Jenkins*,
Commissioner of Revenue.

* In original, from Mr. Price, dated 4th instant.

THE Honourable India Company, *Dr.*

To the following Expenses incurred in removing the Government Farming Implements, &c., from Saikwah to Tezpore, under the sanction of the Commissioner's Letter to Captain *E. T. Dalton*, Collector of Luckimpore, No. 188, dated 13 April 1852, viz.:

	Rs.	a.	p.
May 7.			
To paid 12 dooms for conveying farming implements, cotton cleaning machines, and cotton from Saikwah to Dibrooghur, at one rupee each	-	12	-
Ditto hire of boats, at four anas each	-	1	8
May 22.			
To paid Moodoo Manjee for hire of his ponsee boat for 24 days, employed in conveying the above-named articles from Dibrooghur to Tezpore, at the rate of 41 rupees per mensem	-	32	12 9
May 31.			
To paid Barrute Burkundaz, in charge of the above articles, his salary for the month of May	-	5	-
TOTAL Company's Rupees	-	51	4 9

Tezpore, 4 June 1852.

(signed) *J. O. Price*,
Superintendent of Cotton Cultivation, Assam.

(No. 134.)

From Lieutenant Colonel *F. Jenkins*, Commissioner of Revenue, Assam, to the Board of Revenue, Lower Provinces, Fort William, dated Gowahatty, 16 June 1852.

Gentlemen,

WITH reference to my letter, No. 125, dated 7th instant, and its enclosures, respecting the sum* required for the cultivation of cotton on 40 poorahs of land in the division of Tezpore, under the superintendence of Mr. Price, I have the honour to transmit a further correspondence† regarding an advance of 150 rupees made to Mr. Price to commence the experiment: as this is the season for putting cotton seed in the ground: and, under the circumstances mentioned, I beg the Board will approve of the present advance, but I have this day directed the Collector of that division not to make any further advance till the orders are received to the Board's letter‡ respecting the continuance or otherwise of the experiment under Mr. Price's superintendence.

* 800 rupees.

I have, &c.
(signed) *F. Jenkins*,
Commissioner of Revenue.

(No. 67.)

From Captain *C. S. Reynolds*, Collector of Durrung, to Colonel *F. Jenkins*, Commissioner of Revenue, Assam, dated Tezpore, 27 May 1852.

Sir,

I HAVE the honour to submit a copy of a letter which I have just received from Mr. Price, Superintendent Government cotton cultivation in this province, with my reply, and solicit your sanction and approval of the advance which I have made him to enable him to commence operations at once, and thus prevent our losing another season, and the waste of the seed now in Mr. Price's possession.

Para. 2. At the same time I solicit your instructions regarding any further advances that Mr. Price may apply for, and generally respecting the experiment to be made in this district.

I have, &c.
(signed) *C. S. Reynolds*, Collector.

† From the Collector of Tezpore, No. 67, dated 27 May 1852. From Mr. Price to the Collector of Tezpore, No. 4, dated 26 May 1852. From Collector, Tezpore, to Mr. Price, No. 73, dated 27 May 1852.

‡ No. 182, dated 11 May 1852, from the Board to Government, a copy of which attached to Board's, No. 57, dated 18 May 1852.

I.
Bengal and
North Western
Provinces.

(No. 4.)

From *J. O. Price*, Esq., Superintendent of Government Cotton Cultivation, to Captain
C. S. Reynolds, Collector of Durrung, dated Tezporé, 26 May 1852.

Sir,

I BEG leave to inform you that the best season for planting cotton in Assam, as far as the experience I have had enables me to judge, is from the 1st of June to the 20th of July, and that season having now almost arrived, allow me the honour of suggesting to you the utility of our commencing operations at once in a limited way, say of 20 poorahs or thereabouts, 10 on the high original soil and the same quantity on the alluvial chur land, now beyond the reach of inundation, the former of which I would plant principally with the exotic seed that I have brought down with me, and the latter from the seed of the dherah kupas, that I also brought from Saikwah, without doing which we shall not only lose the seed on hand, but also a whole season, during which the result of the two small experiments above mentioned would enable us to judge, in a great measure, of our prospect of future success; I therefore hope you may be able to favour me with an advance of one hundred and fifty (150 rupees) for that purpose, so as to enable me to commence preparing the land for the seed at once.

I have, &c.

(signed) *J. O. Price*,

Superintendent of Government Cotton Cultivation.

(No. 73.)

From Captain *C. S. Reynolds*, Collector of Durrung, to *J. O. Price*, Esq., Superintendent of Government Cotton Cultivation, Tezporé; dated Tezporé, 27 May 1852.

Sir,

IN reply to your letter, No. 4, of this date, suggesting the utility of commencing operations at once on a small scale, as the season has arrived for sowing cotton, and that you propose taking up about 20 poorahs of land, half of the high land, for the cultivation of the exotic cotton, and half on alluvial chur lands, above inundation, for the dherah cotton of Saikwah, I beg to observe that although I perfectly concur with you in the expediency of your commencing at once, I have not as yet received any orders from the Commissioner on the subject, and am therefore unable to inform you what his wishes are on the subject. However, as it appears from his letter to Captain Dalton, No. 188, of the 13th April 1852, that he has recommended to the Sudder Board that the experiment should be tried here, and as a whole season will be lost unless you are able to prepare the lands at once, I will take upon myself the responsibility of advancing the amount you require, and would suggest your sending me receipts in duplicate for the amount, when I will pay the money to whoever you may depute to receive it.

I have, &c.

(signed) *C. S. Reynolds*, Collector.

(True copies.)

(signed) *F. Jenkins*, Commissioner of Revenue.

Board of Revenue, Lower Provinces,
Fort William, 2 July 1852.

(True copies.)

(signed) *C. H. Lushington*, Secretary.

(True copies.)

(signed) *J. W. Dalrymple*,

Under Secretary to the Government of Bengal.

No. 8.

(No. 632.)

From *A. R. Young*, Esq., Under Secretary to the Government of India, to *J. W. Dalrymple*, Esq., Under Secretary to the Government of Bengal.

Sir,

Home Dept.

I AM directed to acknowledge the receipt of your letter, No. 819, dated the 5th instant, and, in reply, to state that in the opinion of the Governor-general in Council there seems to be no justification or encouragement for continuing further the unsuccessful experiments for the production of cotton in Assam. His Lordship in Council does not hesitate therefore to authorise their being abandoned, and the services of Mr. Price, the Superintendent, dispensed with.

2. A communication on the subject will be made to the Honourable the Court of Directors by the next mail.

I have, &c.

(signed) *A. R. Young*,

Council Chamber, 27 August 1852.

Under Secretary to the Government
of India.

(No. 67.)

Fort William, Foreign Department, 4 August 1854.

I.
Bengal and
Provinces.

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

DURING the commencement of the year we sanctioned the deputation of Mr. J. O. Price, who had been engaged some years ago in inquiring into the capabilities of the province of Dacca, and that of Assam for cotton cultivation, to Pegu, to report upon its capacities for growing cotton. We have now the honour to transmit, for your information, copies of letters from the Commissioner of Pegu, forwarding Mr. Price's reports on the cotton lands in Pegu, together with copies of the minutes recorded, and of the letter written to the Commissioner of Pegu on the subject.

Fort William,
4 August 1854.

We have, &c.
(signed) *Dalhousie.*
J. Dorin.
J. Low.
J. P. Grant.

(No. 2.)

From Captain *A. P. Phayre*, Commissioner of Pegu, and Agent to the Governor-General, to the Secretary to the Government of India, Foreign Department.

Sir,

I HAVE the honour to submit for the information of the Most Noble the Governor-general in Council, copy of letter to my address, No. 9, dated the 12th ultimo, from Mr. J. O. Price, on the cotton cultivation of Pegu. This letter unfortunately having been detained at Rangoon, only reached me on the 3d instant.

Revenue.

2. Mr. Price has now inspected the principal cotton lands situated in the valley of the Irrawaddy, within the districts of Henzada and Prome, and he has supplied all the information which it is likely he can obtain at present. The result amounts to this: First, that the indigenous cotton of Pegu is of good quality; Second, that in past times it has been produced in very considerable quantities; Third, that the Prome district contains an extensive area of fine cotton land.

3. The practical benefit to be derived from Mr. Price's inquiries appears to be, that it will be very desirable to foster the cotton cultivation by endeavouring to incline the people again to take up those lands which the disturbed state of the country has caused them to abandon. The best and most obvious method for doing this is to put a low rate of assessment on cotton lands for a few years, and this I request sanction to do.

4. I also purpose distributing some foreign cotton seed; I did distribute some last year, which I see Mr. Price met with at Henzada.

5. As I do not consider that Mr. Price's further employment is required in Pegu, inasmuch as he has furnished the information which was desired, and his inquiries up the Sitang River could not be made advantageously at the present season, I have directed him to return to Rangoon, with a view to his embarking for Bengal.

Pegu, Commissioner's Office,
Bassein,
9 June 1854.

I have, &c.
(signed) *A. P. Phayre*,
Commissioner of Pegu,
and Agent to the Governor-General.

(No. 9.)

From the Superintendent, Government Cotton Cultivation, to Captain *A. P. Phayre*, Commissioner of Pegu.

Sir,

I HAVE the honour to submit to you, for the information of the Most Noble the Governor-general in Council, a report of my proceedings up to the present date, in the examination of the soil of the province of Pegu with respect to its capabilities for growing cotton.

Having arrived at Rangoon on the 13th February, and perfectly satisfied myself that the Delta, or low lands in that part of the country were quite unsuited for the growth of

I.
Bengal and
North Western
Provinces.

cotton, and particularly that of the exotic kinds, I thought it advisable to proceed at once to Prome, where I was aware the climate was of a much drier nature, and in which district I was informed, by the best information I could procure, that cotton had been, previous to the late war, the general crop of that country, and that to a very large extent. On my arrival there I was detained for a short time by the difficulty found in procuring an interpreter, on which being obtained, I proceeded to examine the land on the left bank of the Irrawaddy, from opposite Prome up to Thayet Mew, in the interior of which district I found in the detached localities some very fine cotton land, which gave evident proofs of having been nearly all formerly in cotton cultivation, so much so that self-sown cotton is growing wild through the jungle that has sprung up since the disturbed state of the country; indeed agriculture in general has been so neglected for the last two years, that many of the inhabitants have deserted their villages altogether, principally from the dread of being attacked by the gangs of decoits that are in the country. The natives say themselves they only want protection and a near market to enable them to grow double the quantity of cotton ever grown in this country; very little cotton has been grown last year, and the consequence is that it is 15 rupees per 100 viss, that formerly sold at from 4 to 6 rupees for that quantity; the present price is equal to Rs. 3. 6. per maund; but it is the opinion of the natives that in a year or two it will become as cheap as ever it was, if encouraged by Government to grow it. It will be seen from the prices I have above stated that cotton was formerly sold here for less than half the price of Bengal cotton, although superior in quality; indeed, with exception of the dherah kupas of Assam, this is the best indigenous cotton I have seen in India, and care in picking it would improve it much in strength and colour.

3. I next proceeded to examine the land on the right bank of the river to the interior of Prome, where I examined a large tract of country, almost all of which I found to consist of superb cotton land, in fact I may safely state that a finer cotton district I have never seen, and of such an extent that I saw no limit to the quantity of land procurable, and the natives say that the same dark rich soil continues for an immense extent, unless when intercepted with low hills, which are generally of a gravelly nature. I regretted much that I was unable to go further into the country, and into Upper Tharawaddy, on account of only having four Burmah coolies as an escort, and the disturbed state of the latter place rendering it unsafe for me to do so. I regret that I am unable to speak from personal experience of the climate, but everything that I have heard respecting it gives me reason to hope that it will prove as favourable for the growth of exotic cotton as it is at present for indigenous kinds, the rains being represented to me to consist of heavy showers occasionally, instead of the deluges of rain that Bengal and many parts of this province are subject to. I wish much we had 10 or 20 seers of exotic seed to try a few beegahs of land in this district, which would answer all the purpose of ten times the quantity in trying the climate. It should be planted in June, and perhaps a small quantity of seed could be got from the Agricultural Society, and received here in all that month, should his Excellency the Governor-general think it desirable to have more authentic proofs of the climate being suited for the growth of foreign cotton.

4. Having perfectly satisfied myself with respect to the valuable qualities of the district of Prome, I next turned my attention to the district of Sarawah, at which place I now am, after having examined some of the localities in it, reported to me to be most favourable for cotton cultivation, but I have found the land in general all too low for exotic cotton, very little of it being free from inundation, excepting the high grounds on which the villages are placed; besides, I am informed, it is subject to an immense quantity of rain during the wet season; the indigenous cotton planted here is sown broadcast on the chur land immediately after the inundation recedes, and is picked before the next rains, and this is done to a very limited extent; in fact, the natives, wherever I inquire after cotton, point out Prome and Upper Tharawaddy as the great cotton-growing districts. This district is well suited for the growth of indigo, from the nature of the land, and the great advantage that this province possesses, from the late season in the year that the inundation takes place rendering loss of crop on the ground almost impossible, which is too often the case in Bengal; it is also a very rich rice country. I had been informed that a little Sea Island cotton seed had been supplied to some natives, but on visiting their villages they informed me that the seed they had planted had not germinated, and some of them have kept theirs to plant in the rains; I instructed them how to do so, but the seed which I examined is too old, I am afraid, to vegetate; still a few of the seed may grow.

5. I regret that either from the ignorance, or some other secret motives of the natives in the different districts that I have visited, I have been unable to obtain anything like authentic information from them respecting the quantity of cotton formerly grown in any one district, or the quantity of land formerly in cultivation in any particular part of the country. They all agree that the quantity of cotton was something immense, but they cannot name any particular quantity; but this is to be less regretted, as we are aware of the quantity having been really very great, and of there being more fine cotton land in the country than will be cultivated for many, many years to come; besides, I am informed by parties who are acquainted with the lands on the Sitang River, that there is any quantity of very rich soil there, with a climate in some places much the same as that of Prome; but the season, I am afraid, is too far advanced to be able to examine in that part of the province at present.

I have

I have been much astonished to find the mode of agriculture in so old a country as this in so rude a state, indeed nothing could be more so in cultivating cotton; they neither use plough, hoe, nor spade, but merely ruffle the surface of the soil with a coarse-made chisel or a piece of wood; and with the cotton seed they plant rice or some other mixed crop from the land, after all the labour of felling the wood and clearing the land, although the land is for many feet down the same free, dark, rich soil; but this is not the case with those who plant rice only; their lands being quite level they allow water to settle on the land as the ryots do in Bengal, and when it becomes perfectly soft they use a sort of a rude harrow to turn the surface of the soil up with, so as to enable them to sow yearly on the same land, and I am told, to reap most abundant crops, such is the richness of the soil of this province.

I have, &c.

(signed) J. O. Price,

Hendaza, 12 May 1854.

Superintendent Government Cotton Cultivation.

(True copy.)

(signed) A. P. Phayre,

Commissioner of Pegu, and Agent to the Governor-General.

(No. 4.)

From Captain A. P. Phayre, Commissioner of Pegu, and Agent to the Governor-General, to the Secretary to the Government of India, Foreign Department, Fort William.

Sir,

I HAVE the honour to submit, for the information of the Most Noble the Governor-general in Council, copy of letter to my address, No. 13, dated 5th instant, from Mr. J. O. Price, containing his further report regarding cotton cultivation in the district of Sarawah (Henzada).

Revenue.

I have, &c.

(signed) A. P. Phayre,

Pegu Commissioner's Office, Rangoon,
22 June 1854.

Commissioner of Pegu, and Agent to the Governor-General.

(No. 13.)

From the Superintendent of Government Cotton Cultivation, Pegu, to Captain A. P. Phayre, Commissioner of Pegu, and Agent to the Governor-General.

Sir,

I HAVE the honour to report to you the result of my examination of the soil of this district, as far as practicable at present. As Upper Tharawaddy still continues in too disturbed a state to admit of my visiting that part of the country at present, and in the southern part of the district, where indigenous cotton is grown to a small extent, after the inundation has receded, no opinion can be formed of the soil at the present time. As the parties who grow the cotton must depend much on the deposit left on the land after the water has retired, the dry season, when the crop is on the ground, will be the proper time of judging of the likelihood of their being able to grow that sort of cotton extensively; they say themselves that it is a more profitable crop than rice, and therefore the greater inducement for them to increase their cultivation if they have lands suited for it.

2. On my arriving here from Prome, and having got as much information from Mr. Dan-gerfield and others as possible of this part of the country, I proceeded on the 5th for the neighbourhood of Okphoh, and visited on my way the following villages: Zumbeyow, Emajou, Tengainween, Pacon, and Leoo; on the 6th, Moyea, Tullucktau, Wagee, Zelongmew, and Okphoh; on the 7th, Kangoon and Kveengoon, at both of which places exotic cotton seed had been given to the natives, but on inquiry they told me it never vegetated, but from what cause they could not say, and not finding any cultivated land further than Kangoon I returned to Okphah, and on the two following days visited the following several villages:—8th. Ine, Kama, Mujegon, Kenzee, Lambaugoon, and Dambee; and on the 9th, Kepee, Choutong, and Ladeguain. All the lands that I examined on this trip are very fine, but nearly all subject to inundation, and those that are not, so flat as to be nearly as bad during the heavy rains that the district is subject to, rendering both kinds very unfit for the cultivation of foreign cotton.

3. Having remained some days at Henzada, in hopes of having the honour of receiving a reply to my letter, asking for information where you wished me to proceed to on leaving the district, but not having received any, I left this place again on the 20th, and having procured a guide and carts I left for the interior on the 25th, and passed through the following villages: Subakoe, Contan, Reeyow, Keetee, Teekee, and Pudaui; and on the 26th, Kyengone, Paynagone, Kaeae, Tiepuquen, Logeque, Yamyaw, Piam, Ram, and Meayon; on the 27th, Tumgone, Meontagow, Taumingone, and Phegow, and returned to Myodoung.

I.

Bengal and
North Western
Provinces.

The rains having fairly set in I returned to this place on the 30th. The lands in the neighbourhood of Myodoung, and for about six miles back, are more or less subject to inundation, but from that distance it is a very fine part of the district, and generally free from the influence of the river; it consists of fine rich flats, surrounded by small gravelly hills; the soil would be free if fairly cultivated, and suited almost for any cultivation. The inhabitants informed me that they had never planted cotton, so that they would not easily take to it, I am afraid, at least I have found it so in Bengal, where this was the case, but several of them said they would willingly try a little of the exotic seed if it was given to them, but unfortunately we have not any; they say the rains are somewhat lighter there than here.

4. I have not been able to mention the distances of the villages from each other, or any particular place, as I had finished with the district of Prome, and a part of this one before I had the honour of receiving your letter, No. 158; and in my last trip I found it impossible to approach to anything near the truth, as the natives only give such information as answers their own purpose; I therefore had thought it better to leave that for your Assistant Commissioner when out visiting the different parts of the district, as he will have much better opportunities of getting true information from his native establishment than I could be expected to do, and particularly so from my only having an opportunity of passing once through any part of the district.

Henzada,
5 June 1854.

I have &c.
(signed) *J. O. Price*,
Superintendent of Government Cotton Cultivation,
Pegu.

(True copy.)
(signed) *A. P. Phayre*,
Commissioner of Pegu, and Agent to the Governor-General.

MINUTE by the Most Noble the Governor-General of India, concurred in by the Honourable Colonel *J. Low*, C. B.

Cotton in Pegu.

THE Commissioner of Pegu transmits a general report by Mr. Price, on the cotton lands in Pegu.

The examination has been confined to the western side of the province, and it has only been partial, for various reasons, which are stated.

The result seems to be that the lower districts of the province are wholly unsuited to the cultivation of cotton, though well adapted for the growth of indigo. The upper districts, however, including the northern portions of Tharawaddy, contain a soil and climate upon both sides of the river which seems to hold out a rich promise in regard to the supply of cotton, when the population shall have increased and cultivation shall have been improved.

It would be very desirable to send down some cotton seed to the Commissioner, which might still be tried this year, if it shall be sent by the next mail. It may, perhaps, be procured here.

This report should be forwarded to the Court of Directors.

30 June 1854. (signed) *Dalhousie*.

I concur.

4 July 1854. (signed) *J. Low*.

MINUTE by the Honourable *J. A. Dorin*; concurred in by the Honourable *J. P. Grant* and Honourable *B. Peacock*.

Cotton cultivation
in Pegu.

CAPTAIN PHAYRE asks leave to put a low rate of assessment on cotton lands for a few years, with a view to promote the cultivation of cotton, but I very much doubt the expediency of fostering its growth in this way.

If the cultivation is profitable, and will pay, it ought to do so without any special reduction of assessment; if it requires a concession of this nature to make it answer, no cotton can hardly be good enough to succeed at all.

I assume in this, that Captain Phayre proposes to assess his cotton land at a lower rate than other good land in the province and vicinity.

(signed) *J. A. Dorin*.

3 July 1854.

I concur as to the Commissioner's proposal to reduce the assessment of cotton land below the usual rate, with Mr. Dorin. If special encouragement from Government is needed, I should prefer giving it in the shape of a price for the cotton for a year or two; but from Mr. Price's account, I do not see why any special encouragement to cotton cultivators should be necessary. When the country is secured from plunderers, for which end
all

all proper measures are now in progress, all cultivators will be encouraged; and as cotton can be purchased cheaply, whilst in ordinary times there is a large native demand for the article, I cannot doubt that the cotton cultivation will revive with the revival of all other branches of industry.

I.
Bengal and
North Western
Provinces.

(signed) J. P. Grant.

5 July 1854.

I concur.

6/7/1854.

(signed) B. Peacock.

(No. 3086.)

From G. F. Edmonstone, Esq., Secretary to the Government of India, to Captain A. P. Phayre, Commissioner of Pegu.

Sir,

I AM directed by the Governor-general in Council to acknowledge the receipt of your two despatches, dated respectively the 9th and 22d ultimo, Nos. 2 and 4, forwarding Mr. Price's reports on the cotton lands of Pegu; and, in reply, to communicate the following remarks and instructions. Foreign Depart-
ment.

2. It appears that Mr. Price's examination has been confined to the western side of the province, and that it has been only partial, for various reasons, which are stated.

3. The result seems to be that the lower districts of the province are wholly unsuited to the cultivation of cotton, though well adapted for the growth of indigo, while the upper districts, including the northern portions of Tharawaddy, have a soil and a climate upon both sides of the river which seems to hold out a rich promise in regard to the supply of cotton, when the population shall have increased, and cultivation shall have been improved.

4. His Lordship in Council, thinking it very desirable that a superior description of cotton should be introduced, and that, if possible, the experiment should be tried this season, a package containing a couple of bushels of seed of the South Sea Island cotton has been sent to your address. You are authorised to distribute this seed gratis, at your discretion, and are requested to report hereafter whether or not it has succeeded, and if not, what may have been the causes of failure, whether they are connected with the climate or the soil of the province, or with the imperfect and crude mode of cultivation.

5. With reference to the 3d paragraph of your letter, No. 2, dated 9th ultimo, I am desired to inform you that the Most Noble the Governor-general in Council entertains great doubts as to the expediency of assessing cotton lands at a lower rate than other lands of the same character, on which other crops may be grown. If the cultivation of cotton is remunerative, and if, as you state, it has been abandoned only in consequence of the disturbed state of the country, there seems no reason to doubt that the people will resume it of their own accord, and without any such special encouragement as you propose, whenever complete tranquillity shall have been secured. For this end all proper measures are now in progress, and as cotton can be produced cheaply, whilst in ordinary times there is a large native demand for the article, His Lordship in Council feels satisfied that the cotton cultivation will, without any special concession, revive with the revival of all other branches of industry.

6. But if any special encouragement should be needed, the Governor-general in Council would prefer giving it in the form of a fair price for the cotton, for a year or two. This, while it would secure the end in view equally well, would not interfere, as the measure proposed by you might do, with the principles which it may be found advisable hereafter to adopt in the assessment of the land revenue.

7. His Lordship in Council will be glad to receive a further report from you on this point, should you have any suggestions to offer.

I have, &c.
(signed) G. F. Edmonstone,
Secretary to the Government of India.

Fort William, 17 July 1854.

EXTRACT Foreign Letter from Bengal, dated 16th March (No. 20.) 1855.

With reference to our orders of July last,* relative to the reports on cotton lands in the province of Pegu, made by Mr. Price, the Commissioner repeated his desire to be permitted to assess cotton lands at a lower rate than lands of the same character bearing other crop, and he stated that he preferred this measure to that of encouraging the cultivation of cotton by guaranteeing a fair price for

1854.
Cons. 25 August.
Nos. 129 and 130.
List, No. 111.
* Letter, No. 67,
of 1854.

I.
Bengal and
North Western
Provinces.

the produce. The Commissioner was of opinion that the concession which he proposed would be received as it was intended, as an encouragement to cotton cultivation, and nothing else; and he apprehended that without some such measure, no decayed branch of industry would be revived, or new one introduced in a country in which agricultural industry has received so severe a shock as in Pegu, and which was so devoid of capital and enterprise. Whether these considerations were sufficient for departing from the "sound principle" (as the Commissioner himself acknowledged it to be) of the former orders, might be doubted, but Major Phayre stated one material fact which was not before us when those orders were passed, viz.: that, "under the Burmese government no tax whatever was put on cotton lands," which somewhat altered the complexion of the case.

266. The Commissioner requested orders relative to the further employment of Mr. Price in the province.

267. It was intimated to Major Phayre that either proposal of the two adverted to by him was open to objection, but that under the circumstances described by him as existing in the time of the Burmese rule, the fixing a lower assessment on cotton lands seemed to us the less objectionable, and with advertence to the great anxiety felt in England for every exertion being made in every quarter to increase the supply of cotton, we have sanctioned the adoption of the measure urged by the Commissioner, care being taken to show that it was not regarded as paramount.

268. The Commissioner was also informed that we did not further require the services of Mr. Price.

No. 129.

(No. 11.)

EXTRACT Fort William Foreign Consultation, dated 25 August 1854.

From Captain A. P. Phayre, Commissioner of Pegu, and Agent to the Governor-General, to G. F. Edmonstone, Esq., Secretary to the Government of India.

Sir,

I HAVE the honour to acknowledge the receipt of your letter, No. 3086, dated the 17th ultimo, relative to the reports on cotton lands, in the province of Pegu, made by Mr. Price.

2. I certainly think that in time the cotton cultivation in Pegu will recover itself without the stimulus which I proposed in the shape of a reduced rate of assessment on land cultivated with that crop. But when I consider the shock given to agricultural industry generally throughout the upper portion of the province, combined with the fact that under the Burmese Government no tax whatever was put on cotton lands, I fear that if full rates of tax be now imposed, the revival of this particular cultivation will be materially retarded. I do not propose the lower rates as a permanent measure, but as one which might be allowed to exist for a few years. I respectfully beg to state that I do not think this measure would interfere with the principles which it may hereafter be found necessary to adopt in the assessment of the land revenue; it will be received as it is intended, namely, as an encouragement to cotton cultivation, and nothing else. It certainly may be doubted whether it is a sound principle for Government to encourage one branch of industry more than another; but I consider that in a country, such as Pegu, without capital, without enterprise, no new branch of industry could be introduced, or decayed one revived, but through means of some such measure as that proposed.

3. I beg respectfully to state that I prefer the measure above proposed to that of giving a fair price for the cotton for a year or two. This appears to me to involve an interference with seller and buyer, which is more studiously to be avoided than the encouragement by Government, through means of a light tax, to any one particular branch of industry. It is exceedingly difficult, if not impossible, in such a case to discover what is a fair price for the produce; and I am very certain that the offer from Government to become the purchaser of the produce would engender suspicion on the part of the producers, and perhaps have the effect of giving them a prejudice against the cultivation, rather than of holding out an inducement to pursue it.

4. As soon as the South Sea Island cotton seed is received, I shall be careful to have it distributed where it is likely to be useful.

5. I beg to solicit the orders of the Most Noble the Governor-general in Council relative to the further employment of Mr. Price in this province.

I have, &c.

(signed) A. P. Phayre,

Commissioner of Pegu, and Agent to the
Governor-General.

Pegu Commissioner's Office, Rangoon,

1 August 1854.

(No. 3755 of 1854.)

From *G. F. Edmonstone*, Esq., Secretary to the Government of India, to Major *A. P. Phayre*,
Commissioner of Pegu.

Sir,

I HAVE the honour to acknowledge the receipt of your letter, dated the 1st instant, No. 11, wherein you repeat your desire to be permitted to assess cotton lands at a lower rate than lands of the same character bearing other crop, and state that you prefer this measure to that of encouraging the cultivation of cotton by guaranteeing a fair price for the produce.

2. In reply, I am directed to observe that either proposal of the two adverted to by you is open to objection, but that under the circumstances described by you as existing in the time of the Burmese rule, the fixing a lower assessment on cotton lands seems to the Most Noble the Governor-general in Council the less objectionable; and adverted to the great anxiety felt in England for every exertion being made in every quarter to increase the supply of cotton, his Lordship in Council sanctions the adoption of the measure urged by you, care being taken to show that it is not regarded as permanent.

3. With reference to the 5th para. of your letter, I am desired to acquaint you that the Government do not further require the services of Mr. Price.

I have, &c.

(signed) *G. F. Edmonstone*,

Secretary to the Government of India.

Fort William, 25 August 1854.

I.
Bengal and
North Western
Provinces.

No. 130.

Foreign Department.

EXTRACT Foreign Letter from India, dated 22 March (No. 32) 1856.

76. With paragraph 4 of our letter of 17th July 1854,* we forwarded to the Commissioner a couple of bushels of seed of the South Sea Island cotton, which he was requested to distribute at his discretion, and to report thereon.

77. In his letter of 30th May last, the Commissioner stated that none of the seed had germinated, and the Deputy Commissioner of Henzada attributed the failure to the badness of the seed. During a tour made by the Commissioner in February, March, and April, through the districts of Prome and Toungoo, he had made particular inquiries regarding the cotton cultivation. He submitted a memorandum on that subject, and also on the growth of silk. He likewise forwarded specimens of both products.

78. A copy of the memoranda furnished by the Commissioner, together with the specimens of cotton and silk, was sent to the Chamber of Commerce, for information, and the Agricultural Society was requested to forward two more bushels of fresh seed of the South Sea Island cotton, for transmission to the Commissioner of Pegu.

79. The Agricultural Society having sent us a maund of the required cotton seed, with a request to be furnished with any reports that the Commissioner of Pegu might submit, on the result of his experiments with it, as also samples of the cotton raised from it, we have forwarded the same to the Commissioner, and have requested him to submit the result of his experiments.

80. The Chamber of Commerce submitted reports on the samples of cotton and silk which had been sent to them; and copies of them have been transmitted to the Commissioner for his information.

(No. 2135 of 1855.)

From *J. W. Dalrymple*, Esq., Officiating Under Secretary to the Government of India,
to the Secretary to the Agricultural Society.

Sir,

I AM directed by the President in Council to forward, for the information of the society, the accompanying specimens of vegetable products, furnished by Lieutenant E. C. J. Williams, Superintendent of Survey in Pegue, together with an extract, para. 20, from his letter, dated the 20th December last, No. 181, forwarding them.

Foreign Department.

I have, &c.

(signed) *J. W. Dalrymple*,Officiating Under Secretary to the Government
of India.

Fort William, 15 June 1855.

* Letter No. 67 of 1854.

I.
Bengal and
North Western
Provinces.

EXTRACT (para. 20) of a Letter from the Superintendent of the Survey in Pegu, to Major *Phayre*; dated 20 December 1854, No. 181.

A principal article of cultivation is rice; in addition, but to a very small extent, cotton of a short staple; most villages having a small patch, though I have not met with the black soil so favourable to its growth.

No. 9.

(No. 66 of 1855.)

From Major *A. P. Phayre*, Commissioner of Pegue, and Agent to the Governor-General, to *C. Beadon*, Esq., Secretary to the Government of India, Officiating Foreign Department, Fort William.

Sir,

WITH reference to para. 4 of letter to my address, No. 3086, dated the 17th July 1854, from Mr. Secretary G. F. Edmonstone, transmitting two bushels of South Sea Island cotton seed, I regret to say that none of the seed germinated. I beg to annex copy of a letter to my address on this subject, No. 63, dated 7th February 1855, from Captain *C. D. Grant*, the Deputy Commissioner of Henzadah, who attributes the failure to the badness of the seed.

2. During a tour I made in February, March, and April, through the districts of Prome and Toungoo, I made particular inquiries regarding the cotton cultivation, and I beg to annex, for the information of the Honourable the President of the Council of India in Council, a memorandum on that subject, and also on the growth of silk.

3. Specimens of both products are forwarded in parcels to your address.

I have, &c.

(signed) *A. P. Phayre*,
Pegue Commissioner's Office, Commissioner of Pegue, and Agent
Rangoon, 30 May 1855. to the Governor-General.

(No. 63 of 1855.)

From Captain *C. D. Grant*, Officiating Deputy Commissioner, Henzadah, to Major *A. P. Phayre*, Commissioner of Pegue and Agent to the Governor-General.

Sir,

IN accordance with the instructions contained in the first portion of para. 2, of your revenue letter, No. 104, dated 17th August 1854, I have the honour to state, that I distributed to several natives a portion of the South Sea Island cotton seed supplied to me, and also had a patch of ground sown with the remainder under my personal superintendence.

2. I beg to report, for your information, that every attempt to grow the same has proved a failure, which, in the opinion of those natives to whom I supplied the seed, is attributed to the badness of the seed, and not to the effects of soil or climate.

I have, &c.

(signed) *C. D. Grant*,
Henzada Districts, Officiating Deputy Commissioner of Henzadah.
Deputy Commissioner's Office, Henzadah,
7 February 1855.

(True copy.)

(signed) *A. P. Phayre*,
Commissioner of Pegue, and Agent to the Governor-General.

MEMORANDUM on the Indigenous Cotton of the Northern Districts of the Province of Pegue.

MOST of the cotton produced in the province of Pegue is grown on the hills which form the water-shed of the country lying between the rivers Irrawaddee and Sitang; a considerable quantity is also produced on the eastern slopes of the Arrakan range. The elevation at which it is planted varies from 400 to 800 or 1,000 feet above the sea. The soil is prepared for it during the months of January and February, by the forest trees being cut down, and left to dry in the sun, until about the beginning of May, or just before the first showers of rain, when the fallen and dried timber is fired. The seed is then sown amongst the ashes, a hole to receive it being scraped in the soil with a small hand hoe or dha. Paddy and cotton are, in some parts of the country, generally sown together. The paddy ripens, and is reaped during October or November. The cotton commences to be picked towards the end of February. The plant is an annual, and from the rude system.

system of cultivation existing among the people, and the want of terraces, it is found necessary, on the hill sides, to make a fresh clearing of the forest for the crop of each year.

The tribes who follow this mode of cultivation are Karens, Khyens, and a few Burmese.

The cultivators sell the cotton uncleaned, that is, with the seed still attached to it. They have a gin, similar to the churka used in India, to clean what is required for their own use. They state that 100 viss (or 365 lbs.) of uncleaned cotton produce 30 or 35 viss (109 lbs. to 127 lbs.) of cleaned.

The sample of uncleaned cotton herewith sent was purchased at a village situated in the hills, on the eastern border of the Prome districts; it was grown at an elevation of about 600 feet above the sea, and is a fair sample of the quality of the cotton raised in Pegue.

The present price of this cotton is very high, being not less on the spot than 20 rupees the 100 viss, nearly one anna a pound for uncleaned cotton. Three years ago the ordinary price was from six to seven rupees the 100 viss. This great increase in price arises from the entire interruption to agriculture during the war, and the confusion and want of confidence among the people, until about the sowing season of 1854.

Up to the year 1852 the cotton grown throughout the Prome and Meeaday districts was purchased by Chinese merchants, who established depôts for cleaning it on the banks of the Irrawaddy. They used to clean it with iron gins, and convey the cleaned cotton by water to Ava, and from thence *viâ* Bhamo to the province of Yunnân. As an instance of the price which the Chinese are prepared to pay for raw cotton, I may mention that during the present year (March 1855) the Chinese merchants in Ava have paid 55 tikâls of silver (or say rupees) per 100 viss for the cleaned cotton, and that the quantity exported was valued at eight lakhs of rupees. It still has to be carried more than 200 miles from Ava by water to Bhamo, and then to be put on the backs of mules, for several days' journey by land, before reaching its destination. Taking the difference of weight between the tikâl and rupee, the price of this cotton sold in Ava may be put down at 2½ annas a pound. There appears no reason why English twist should not find a ready sale in Ava for the Yunnân market.

The cotton cultivating tribes in the province of Pegue are now rapidly extending their cultivation, and in another year or two I expect to see prices down to about eight rupees the 100 viss (365) lbs. of uncleaned cotton.

(signed) A. P. Phayre,

Prome, 4 April 1855.

Commissioner of Pegue, and Agent to the
Governor-General.

(No. 2267 of 1855.)

From J. W. Dalrymple, Esq., Officiating Under Secretary to the Government of India,
to the Secretary to the Chamber of Commerce.

Sir,

I AM directed by the President in Council to forward to you, for the information of the Foreign Department, a copy of the undermentioned papers, together with the specimens of cotton and silk therein referred to.

Memorandum by the Commissioner of Pegue on the indigenous cotton of the northern districts of the province, dated 4 April 1855.

Memorandum by ditto on silk produced in the northern portion of the province, dated 4 April 1855.

I have, &c.

(signed) J. W. Dalrymple,

Fort William, 29 June 1855.

Officiating Under Secretary to the
Government of India.

(No. 2268 of 1855.)

From J. W. Dalrymple, Esq., Officiating Under-Secretary to the Government of India,
to the Secretary to the Agri-Horticultural Society.

Sir,

IN continuation of the letter to your address, dated 10 July 1854, No. 2957, I am directed by the President in Council to request that you will do him the favour to forward to this office, as early as possible, two more bushels of fresh seed of the South Sea Island cotton for transmission to the Commissioner of Pegue.

I have, &c.

(signed) J. W. Dalrymple,

Fort William, 29 June 1855.

Officiating Under Secretary to the
Government of India.

I.
Bengal and
North Western
Provinces.

From *A. H. Blechnyden*, Esq., Secretary to the Agri-Horticultural Society, to
J. W. Dalrymple, Esq., Officiating Secretary to the Government of India.

Sir,

IN reply to your letter of this date I have the honour to forward one maund of cotton seed of two kinds, as noted in the margin.*

This seed is of a very superior description. Cotton raised from it was valued, in September 1854, by Mr. Bazley, the President of the Chamber of Commerce at Manchester, at 2s. 6d. and 2s. per lb. respectively, when the ordinary short staple American cotton was selling at 6d. to 7d. per lb.

The Society will be glad to receive, in due course, any reports which the Commissioner of Pegue may submit to Government on the result of his experiments with this seed, as also samples of the cotton raised from it.

I have, &c.
(signed) *A. H. Blechnyden*,
Secretary Agri-Horticultural Society.

Metcalfe Hall, Calcutta,
29 June 1855.

(No. 2369 of 1855.)

From *J. W. Dalrymple*, Esq., Officiating Under Secretary to the Government of India,
to the Secretary of the Agri-Horticultural Society.

Sir,

Foreign Depart-
ment.

I AM directed to acknowledge the receipt of your letter^a dated the 29th ultimo, and in reply to communicate the thanks of the Government for the two kinds of cotton seed sent therewith.

2. The seed has been forwarded to the Commissioner of Pegue, and he has been requested to submit the result of his experiments with the seed, as also samples of the cotton raised from it.

3. I am requested to state that the seed forwarded by the secretary in July last year has not germinated; every attempt to grow the same has proved a failure; and the Officiating Deputy Commissioner at Henzada reports that the failure "is attributed to the badness of the seed, and not to the effects of soil or climate."

4. A copy of a memorandum by the Commissioner of Pegue on the indigenous cotton of the northern districts of the province, dated the 4th April last, is inclosed for the information of the Society.

I have, &c.
(signed) *J. W. Dalrymple*,
Officiating Under Secretary to the
Government of India.

Fort William, 3 July 1855.

(No. 2368 of 1855.)

From *J. W. Dalrymple*, Esq., Officiating Under Secretary to the Government of India, to
Major *A. P. Phayre*, Commissioner of Pegue, and Agent to the Governor-General.

Sir,

Foreign Depart-
ment.

I AM directed by the President in Council to acknowledge the receipt of your despatch, dated the 30th May last, No. 66, reporting that the South Sea Island cotton seed, transmitted for cultivation in Pegue, has not germinated; and in reply to acquaint you that a box to your address has been forwarded by the Honourable Company's steam-vessel "Tenasserim," containing one maund of two kinds of seed, as noted in the margin,* received from Agri-Horticultural Society.

2. You will have the goodness to submit the result of your experiments with this seed, as also samples of the cotton raised from it if it germinates.

I have, &c.
(signed) *J. W. Dalrymple*,
Officiating Under Secretary to the
Government of India.

Fort William, 3 July 1855.

* 20 Seers of seed, raised at Melbourne (Australia), from Sea Island stock.
20 Seers of imported Sea Island cotton seed.

40 Seers, or 1 maund.

(No. 2370 of 1855.)

From *J. W. Dalrymple*, Esq., Officiating Under Secretary to the Government of India, to
 Captain *T. E. Rogers*, R. N., Superintendent of Marine.

I.
 Bengal and
 North Western
 Provinces.

Sir,

I AM directed to forward to you the accompanying box to the address of the Commissioner of Pegue, containing cotton seeds, and to request that you will despatch it to Rangoon by the Honourable Company's steam-vessel "Tenasserim."

Foreign Department.

Fort William,
 3 July 1855.

I have, &c.
 (signed) *J. W. Dalrymple*,
 Officiating Under Secretary to the Government
 of India.

From *H. W. J. Wood*, Esq., Secretary to the Bengal Chamber of Commerce, to *J. W. Dalrymple*, Esq., Officiating Under Secretary to the Government of India, Foreign Department, Fort William.

Sir,

I AM instructed by the Committee of the Chamber of Commerce to acknowledge the receipt of your letter, No. 2267, of the 29th June, forwarding, for the information of the Chamber, memoranda by the Commissioner of Pegue on cotton and silk produced in that province, together with specimens of those articles, and for these interesting communications I am directed to tender the Committee's respectful thanks.

2. The sample of cotton has been submitted for the opinions of three competent judges, and I have the honour to transmit their individual reports.

3. The specimen of silk is in every respect similar to that which the Government forwarded to the Chamber in December last, and as Mr. Kilburn's report upon that sample applies exactly to the one now before the Chamber, the Committee conceives that a copy of that report is all that would be required by Government.

Calcutta,
 7 August 1855.

I have, &c.
 (signed) *H. W. J. Wood*,
 Secretary to the Bengal Chamber of Commerce.

REPORTS on Samples of Pegu Cotton.

I find this cotton fibre (*gossypium*) in all its characteristics like many other specimens which have been sent to the Bengal Agricultural and Horticultural Society from parts of the East India Company's territories which lie far eastwardly of the River Ganges, being proximate to and even amidst the high and mountainous ranges lying between the parallels of 20 and 27 north latitude.

It is very probable that the climates of these localities are very similar, and that in their present state and condition they are calculated to give a peculiar character to the fibre of the vegetable cotton (*gossypium*), in like manner as is exemplified in some productions of the animal world.

Thus I instance analogously the Rungpore and Thibetian horse as possessing very close assimilation, and observe that when compared with the horse of the plains lying far westwardly, viz., of the Deccan, Scinde, Persia, and Arabia, notwithstanding the variations found in the said animal of each of these last-named countries, though showing much general similitude, the main characteristics of the two races are so obviously marked, as to admit of no dispute about their distinctiveness, the former exhibiting the primitive rudeness of nature, the latter the graces and amenities consequent on improved breeding and better chosen localities.

I know not the character and status of the country about Prome, but presume it may partake more or less of jungly state, and be proximate to highly mountainous ranges.

Doubtless the climates and soils of all countries may undergo great changes by the arts of man, and be made suitable for yielding improved products of agricultural industry.

It is not my office, however, to hold a dissertation on such matters, but to report on that which is laid before me, and to accompany the same with any useful suggestions.

The cotton is excellent in some respects, but it is very different in its character and nature from that which is grown on most of the cotton-growing localities in India westward of the Ganges.

The fibre is coarse, curly, harsh, and rather short; and it is very tenaciously attached to the seed; but it is most exceedingly strong, and in this respect lies its excellence.

Its colour, condition, and healthfulness are truly good; and the seeds are very abundantly enveloped in wool.

Notwithstanding its great strength, there would be much difficulty and much breakage in detaching the fibre from the seed by any of the ordinary gins or extraordinary saw-gins in use.

The common Indian hand-churka is probably the best machine adaptable for its most perfect divestment.

I.

Bengal and
North Western
Provinces.

Its value in Liverpool, in March month 1855, may be taken at $3\frac{1}{2}d.$ to $4d.$ per pound, and in May month 1855 at $4\frac{1}{2}d.$ to $5d.$ per pound, if pretty well detached from the seed, *i. e.* without much breakage.

I would beg to suggest to the Pegue Commissioner the probable advantage which might arise from changing and improving the breed or variety, if I may so say.

This may be accomplished by growing, intimately intermixed, the best American varieties with the indigenous kinds.

The new varieties which might be expected to arise, if then re-sown in conjunction with the best and purest American, would in all probability yield a very acceptable cotton, partaking of the strength of the indigenous parent, and of the length, fineness, and flexibility of that of the American kind.

The acclimation being perhaps thus better maintained and illustrated in a new variety than by an attempt at once to substitute the American for the indigenous kind.

But each system might be tried simultaneously in different or even the same localities.

Thus the course of future culture would be best determined by the degree of success or otherwise found in each system.

I will only add, that if the Commissioner shall deem my suggestion worthy of a fairly-tried experiment, that I hope he will then cause the result in all particulars attending the trials in the cultivation to be laid before the Chamber of Commerce and the Agricultural and Horticultural Society of Bengal.

(signed) *Joseph Willis.*

Clean and of good colour, free from stains, the staple or fibre is particularly short, though strong.

The sample is not ginned, but has the seed in it as taken from the pod. Taking middling Orleans cotton in the Liverpool market at about the last price of $7d.$ per pound, I value the sample received, when in its ginned state, or free from seed, at $4\frac{1}{2}d.$ per pound in Liverpool.

The unginned cotton may be expected to give two-thirds weight of seeds and one-third of cotton.

(signed) *Wm. Blundell.*

This is "kupass," or cotton taken from the pod without being separated from the seed, and in its present state is not in a merchantable condition, and consequently it is impossible to put a valuation upon it that would be likely to serve any practical purposes.

Separated from the seed, I think it might be worth $2\frac{3}{4}d.$ or $3d.$ per pound in England.

It is a green-seeded cotton, of sound healthy appearance, but it is probably either originally of an inferior stock, or has degenerated through unskilful cultivation.

The staple is very short, the fibre of very considerable strength, but not fine; the seed is, for a cotton indigenous to India, particularly well covered or clothed with the cotton wool, which, however, adheres to the seed-husk with extreme tenacity.

It is particularly clean, and the colour and condition generally (having regard to the fact of the sample being kupass) are both very good.

I have had a small portion of the cotton separated from the seed by the cottage saw-gin, which was presented by the Government to the Agricultural and Horticultural Society, and is now in their rooms in the Metcalfe Hall; and I find that, after undergoing this process, the staple is much cut or shortened, and a considerable quantity of the cotton lost by remaining attached to the seed. This result exhibits a peculiarity of this cotton which I consider to be its greatest defect, and one likely to interfere materially with the profitable cultivation of this cotton; but I am inclined to think that were Seychelles or Pettigulph seed sown in the soil where this cotton has been grown, they would probably yield a more profitable crop, and certainly produce a description of cotton far superior to this.

(signed) *Stewart Douglass.*

(True copies.)

(signed) *H. W. J. Wood,*
Secretary to the Bengal Chamber of Commerce.

(No. 3142 of 1855.)

From *J. W. Dalrymple, Esq.,* Officiating Under Secretary to the Government of India,
to the Secretary to the Agricultural and Horticultural Society.

Sir,

I AM directed by the President in Council to forward to you, for the information of the Society, the accompanying copy of a letter and of its enclosures from the Secretary to the Bengal Chamber of Commerce, dated the 7th instant, submitting reports on samples of cotton and silk forwarded to Government by the Commissioner of Pegue.

I have, &c.

(signed) *J. W. Dalrymple,*

Officiating Under Secretary to the Government
of India.

Fort William,
31 August 1855.

Foreign Depart-
ment.

(No. 3143 of 1855.)

From *J. W. Dalrymple*, Esq., Officiating Under Secretary to the Government of India, to Major *A. P. Phayre*, Commissioner of Pegue, and Agent to the Governor-General.

Sir,

I AM directed by the President in Council to forward, for your information, the accompanying copy of a letter and of its enclosures from the Secretary to the Bengal Chamber of Commerce, dated the 7th instant, submitting reports on the samples of cotton and silk forwarded to Government with your letter dated the 30th May last, No. 66.

Foreign Department.

I have, &c.

(signed) *J. W. Dalrymple*,

Fort William, Officiating Under Secretary to the Government of India.
31 August 1855.

From *A. H. Blechynden*, Esq., Secretary, Agri-Horticultural Society, to *J. W. Dalrymple*, Esq., Officiating Under Secretary to the Government of India.

Sir,

I AM directed by the Agricultural and Horticultural Society of India to acknowledge receipt of your letter, No. 3142, of the 31st August, forwarding for its information copy of a report and its enclosures from the Bengal Chamber of Commerce, on certain samples of cotton and silk from Pegue, and to tender its respectful thanks for the same.

I am further instructed to request the favour of being furnished with a copy of the memoranda submitted by the Commissioner of Pegue on the cotton and silk of that province, to which allusion is made in the letter from the Secretary Chamber of Commerce.

I have, &c.

(signed) *A. H. Blechynden*,

Metcalfe Hall, Calcutta,
17 September 1855.

Secretary Agricultural and Horticultural Society.

(No. 3394 of 1855.)

From *J. W. Dalrymple*, Esq., Officiating Under Secretary to the Government of India, to the Secretary to the Agricultural and Horticultural Society.

Sir,

IN compliance with the request made in your letter of the 17th instant, I have the honour to forward herewith, for the use of the Agri-Horticultural Society, copies of the memoranda submitted by the Commissioner of Pegu on the cotton and silk of that province.

Foreign Department.

I have, &c.

(signed) *J. W. Dalrymple*,

Fort William,
21 September 1855.

Officiating Under Secretary to the Government of India.

EXTRACT Foreign Letter from *India*, dated 22 January (No. 8) 1857.

92. In August 1855 the Chamber of Commerce presented, on behalf of Mr. W. Blundell, a case of Sea Island cotton seed, received from Manchester. Mr. Blundell was of opinion that the seed was likely to produce a very desirable cotton, and suggested that it should be forwarded to the Commissioner of Pegu for trial.

1855.
Cons. 10 August.
293 to 296.
1856.
Cons. 20 June.

93. The cotton seed was sent to the Commissioner, with a request that he would have it tried in the manner he might think most advantageous and report the result for our information.

94. The Commissioner reported that the cotton seed despatched with our letter of 3d July* 1855 had been sent by him to the Deputy Commissioner of Henzada, for a portion thereof to be distributed in that district, and the remainder to be made over to the Assistant Commissioner of Tharawaddie for a like purpose, but that the seed had not germinated in either district. The case of Sea Island cotton seed sent with our letter of 10 August 1855 had been given to the Deputy Commissioner of Bassein for distribution in that district, a moiety being sent on to Henzada for distribution there. Captain Grant reported that

* Letter No. 32 of 1856, p. 76 to 80.

I.
Bengal and
North Western
Provinces.

that none of the above seed sent in December 1855 came up, but that he had reserved a portion thereof for the purpose of being set in August or September 1856, and that the result would be reported in due course. The seed sent to Henzada had altogether failed.

95. By a report received from the Assistant Commissioner of Tharawaddie, there appeared to be a probability of an experiment to introduce the Pernambuco cotton seed being attended with better success.

From *H. W. J. Wood*, Esq., Secretary Bengal Chamber of Commerce, to *J. W. Dalrymple*, Esq., Officiating Under Secretary to the Government of India, Foreign Department, Fort William.

Sir,

MR. W. BLUNDELL, whose report upon a sample of cotton from Pegu was transmitted in my letter of yesterday, has requested the Committee of the Chamber of Commerce to present to the Government of India, on his behalf, the accompanying case of Sea Island cotton seed, lately received from Mr. Bazley of Manchester, who is much interested in the production in this country of a superior description of cotton than has hitherto been exported from India.

Mr. Blundell is of opinion that the seed is likely to produce a very desirable cotton, and will be glad if the Government be pleased to forward it to the Commissioner of Pegu for trial.

That gentleman has another case of seed which he will have much pleasure in presenting to Government for trial in the Deccan; if that experiment be approved of, he states that Dr. Riddell, of Bolarum, has sent to the Agricultural Society here, a sample of very fine cotton raised from Mauritius seed, and valued at from 2s. to 2s. 8d. per lb. in Liverpool.

I am also instructed by Mr. Blundell to state that he has received a cotton gin of the best and latest construction for separating the seed from long-staple cotton, and that he will always be happy to make it available for any experiments the Government may wish to make.

I have, &c.
Bengal Chamber of Commerce, Calcutta, (signed) *H. W. J. Wood*,
8 August 1855, Secretary.

(No. 2885 of 1855.)

From *J. W. Dalrymple*, Esq., Officiating Under Secretary to the Government of India, to Major *A. P. Phayre*, Commissioner of Pegu, and Agent to Government.

Sir,

I AM directed by the President in Council to advise you of the despatch of a case to your address containing Sea Island cotton seed, and to request that you will have the seed tried in the manner you may think most advantageous and report the result for the information of Government.

I have, &c.
(signed) *J. W. Dalrymple*,
Fort William, Officiating Under Secretary to the Government
10 August 1855. of India.

(No. 2886 of 1855.)

From *J. W. Dalrymple*, Esq., Officiating Under Secretary to the Government of India, to *H. W. J. Wood*, Esq., Secretary to the Punjab Chamber of Commerce.

Sir,

IN reply to your letter, dated the 8th instant, I have the honour to request that you will communicate the thanks of the President in Council to Mr. Blundell for the case of Sea Island cotton seed presented by him to Government. The seed will be forwarded to the Commissioner of Pegu, with instructions to have it tried in the manner he may think most advantageous and report the result.

2. His Honor in Council will be happy to accept the other box of seeds referred to in para. 3 of your letter, and to despatch it with similar instructions to the resident at Hyderabad.

3. Mr. Blundell's offer about the cotton gin will be borne in mind by the Government.

I have, &c.
(signed) *J. W. Dalrymple*,
Fort William, Officiating Under Secretary to the Government
10 August 1855. of India.

Foreign Depart-
ment.

(No. 2886 A. of 1855.)

From *J. W. Dalrymple*, Esq., Officiating Under Secretary to the Government of India,
to Captain *T. E. Rogers*, I.N., Superintendent of Marine.

I.
Bengal and
North Western
Provinces.

Sir,

I AM directed by the Honourable the President in Council to request that you will cause Foreign Depart-
the accompanying box* to the address of the Commissioner of Pegu to be forwarded by ment.
the first steamer proceeding to Rangoon.

I have, &c.

(signed) *J. W. Dalrymple*,

Fort William, Officiating Under Secretary to the Government
10 August 1855. of India.

(Government, No. 132 of 1856.)

From Major *A. P. Phayre*, Commissioner of Pegu, and Agent to the Governor-General,
to *G. F. Edmonstone*, Esq., Secretary to the Government of India, Foreign Department,
Fort William.

No. 1.

Sir,

I HAVE the honour to report, for the information of the Right Honourable the Governor- Revenue.
General in Council, that the cotton seed despatched per "Tenasserim," for distribution in
this province, as per Mr. Under Secretary Dalrymple's letter, No. 2368, of the 3d July 1855,
was duly received by me and sent to the Deputy Commissioner of Henzada, for a portion
thereof to be distributed in that district, and the remainder to be made over to the Assistant
Commissioner of Tharawaddee for a like purpose, but I regret to add that the seed is
reported in the letters noted in the margin,† copies of which are appended, as not having
germinated in either district.

2. The case of Sea Island cotton seed, of the despatch of which I had been advised by
Mr. Under Secretary Dalrymple's letter, No. 2885, of the 10th August 1855, remained at
Rangoon till the end of October 1855, awaiting my return from Umerapoora, when it was
given over to the Deputy Commissioner of Bassein for distribution in that district, a moiety
being sent on to Henzada for distribution there. Captain Grant reports that none of the
above seed, set in December 1855, came up but that a portion thereof, was reserved by
him for the purpose of being set in August or September 1856, and that the result will be
reported in due course. The seed sent to Henzada appears to have altogether failed.

3. By a report received from Captain Brown, the Assistant Commissioner of Tharawaddee,
it appears that there is a probability of an experiment to introduce the Pernambuco cotton
seed being attended with better success. The few seeds he had set germinated, but as the
young plants required watering, Captain Brown deemed it better to defer the general distri-
bution of the seed till immediately before the rains (now close at hand), and he trusts he
will be able to report favourably on the same.

I have, &c.

(signed) *A. P. Phayre*,

Pegu Commissioner's Office, Prome,
9 May 1856.

Commissioner of Pegu, and Agent
to the Governor-General.

(No. 80.)

To the Commissioner of Pegu, and Agent to the Governor-General, Rangoon.

Sir,

IN reply to your letter, No. 354, of the 14th current, and with reference to the corre- Revenue.
spondence noted in the margin,‡ I have the honour to inform you that not one of the cotton
seeds sent to me germinated. I tried sowing them different times of the year, and in
different soils, both dry and rather wet, but without one of them sprouting; I covered some
lightly with earth, and sprinkled others on the surface, but all either rotted in the ground or
were eaten by some insect. I do not think that the seeds were fresh; if it were the produce
of the previous year, it probably got wet in the passage, and the great heat which is pro-
duced among damp cotton seed destroyed its general qualities.

2. After receiving the Pernambuco cotton seed sent with your letter, No. 317, dated the
16th January 1856, I ascertained, by sowing some of it, that it was fresh. It has ger-
minated, and the plants appear healthy, but at this season it requires to be watered, and if
given to the Burmese before the rains, would be lost, or if planted would, after sprouting,
die

* Containing Sea Island cotton seed.

† No. 80, 22 February 1856, from Acting Commissioner, Tharawaddy; No. 69, 24 March 1856, from
Officiating Deputy Commissioner, Henzada.

‡ No. 127, 16th July 1855; No. 272, 14th December 1855.

I.

Bengal and
North Western
Provinces.

die off from want of water; I will therefore keep it till just before the rains set in, and after distributing it among the people, will, I hope, be able to give a favourable report of it.

3. In my letter, No. 92, of the 22d January last, I had the honour of informing you that the seed sent to me by Captain Grant had not germinated.

4. In addition to the seeds sent by you, I myself procured a supply through Messrs. Gladstone, Wyllie & Co. of Rangoon, but it proved all bad; and as it was of the same sort, and came from the same source as that sent by you, the same observations apply to it.

I have, &c.

(signed) *D. Brown*, Captain,
Assistant Commissioner, Tharawaddy.

Tharawaddee Assistant Commissioner's Office,
Menzee, 22 July 1856.

(True copy.)

(signed) *A. P. Phayre*,
Commissioner of Pegu, and Agent to
the Governor-General.

(No. 69 of 1855-56.)

To the Commissioner of Pegu, and Agent to the Governor-General.

Sir,

Revenue.

IN reply to your letter, No. 128, of the 16th July last, I have the honour to report that all the cotton seeds received from you were distributed by my predecessor amongst the inhabitants of this district. I find, on inquiry, that none of the seeds have germinated, but from what cause the people appear to be ignorant, though they seem disposed to attribute the failure to the oldness of the seed.

I have, &c.

(signed) *D. T. Morton*,
Off. Dy. Commissioner.

Henzadah Deputy Commissioner's Office,
24 March 1856.

(True copy.)

(signed) *A. P. Phayre*,
Commissioner of Pegu, and Agent to
the Governor-general.

Revenue Department, 22d September (No. 7.) 1847.

Our Governor of the Presidency of Fort William, in Bengal.

Circular.

IN supercession of our former orders, directing you to consign all shipments of experimental cotton to Mr. William Laird, of Liverpool, we now desire that you will in future cause the bills of lading to be made out in our favour, and that you will consign the cotton to the care of Mr. William Rathbone, our authorised agent at Liverpool.

We are, &c.

(signed) *H. St. C. Tucker*,
J. L. Lushington,
&c. &c.

London, 22 September 1847.

Revenue Department, 20th October (No. 13) 1847.

Our Governor-General of India in Council.

Cotton.

Para. 1. WE have received a letter from our Governor-general, dated at Simla, 1st July (No. 9) 1847, with which his Lordship forwards to us the further correspondence which has taken place with reference to the proceedings of the Lieutenant-governor of the North Western Provinces in regard to the arrangements entered into with Mr. Hamilton Bell for the experimental cultivation of cotton in the neighbourhood of Agra.

2. Under the agreement made with Mr. Bell in 1846 (which was sanctioned in our despatch of the 25th November (No. 14) of that year) Mr. Bell was granted an advance of 1,32,000 rupees, for the purpose of cultivating by engagements with the ryots 10,000 beegas of a superior description of native cotton (Baugcheenee), on the understanding that "any profit which might result from the transaction, after replacing without interest the sums advanced, should be paid over to himself."

3. We

3. We now learn that in consequence of the lateness of the season it was found impracticable to extend the cultivation in the degree at first contemplated, and Mr. Bell was permitted to purchase sufficient quantities of the best cottons in the native markets to admit of a fair opinion being formed in this country of their qualities. It is stated that the total quantity grown and purchased will not exceed 6,000 maunds, costing, charges included, about 54,000 rupees. Specimens of these cottons have been received by us, and we herewith transmit to you the report of the brokers, Messrs. Tetley & Sons, which you will observe to be highly favourable as regards their colour and cleanness, but not so in respect of the staple, which is stated to be too short for general purposes. Mr. Tetley considers the present value of these cottons to be from 6 *d.* to 6 $\frac{1}{4}$ *d.* per pound, the price of middling to fair American.

4. In consequence of its having been found impracticable to carry out the experiment during the past year on the plan originally intended, the Lieutenant-governor authorised its renewal for the present year on the same terms, viz., an advance of 1,32,000 rupees for the cultivation of 10,000 beegas, it being stipulated that no cotton is to be purchased, and none shipped on account of Government, except that which has been grown under contract with Mr. Bell, and from seed furnished or approved by him. The advantages secured to Mr. Bell are the same as those promised under the former arrangement viz., that the profit on the transaction, after replacing without interest the sums advanced, shall be paid over to him.

5. It was with some surprise that we learnt that the Lieutenant-governor had renewed for another year an arrangement to which we had given a very reluctant assent, which was only given because we had every reason to believe that the scheme would have been carried into execution before we had the opportunity of communicating our objections to it. We cannot refrain from expressing our opinion that the renewed engagement is, like the former one, an improvident arrangement on the part of the Lieutenant-governor, the whole risk of the transaction being borne by us, and the whole profit (if any) accruing to the proposer, Mr. Bell. We do not mean by these remarks to undervalue the public spirit exhibited by that gentleman in offering his services in carrying out an experiment in which our recent proceedings show that we take a deep interest; nor are we unwilling that his own interests should be advantaged in proportion to the extent to which he may be enabled to assist in furthering a great public object; but we are at the same time of opinion that it would not have been unreasonable to have stipulated that the advance made to Mr. Bell should have been repaid with interest; in the event of the experiment realising a profit. As, however, these observations will not in all probability reach the Lieutenant-governor until the operations of the present year shall have been brought to a close, it is too late for us to refuse our consent to the proceedings now reported, and we can only desire that he will bear them in mind in concluding arrangements for another season, which from Mr. Shakespear's letter of the 12th June 1847, appear to be contemplated.

6. Mr. Bell is particularly anxious that we should withdraw the order contained in our despatch of the 25th November 1846, for the consignment of the cotton to Mr. William Laird, of Liverpool, and that he should be permitted to dispose of it through the medium of his own agents. In this request he is supported by the Lieutenant-governor and by the Governor-general. We do not think that the reasons which Mr. Bell urges in support of his wish are entitled to weight. The real value of the cotton in the English market will be determined, not by the reports of the brokers, but by the estimate which the manufacturers may form of it after having subjected it to the operation of their machines. It is necessary, considering the magnitude of the advances which we are now making at our several presidencies for the improvement of cotton cultivation, that we should take all reasonable precautions for securing the Company against the possible risk of loss; and we therefore desire, in regard to this cotton, as we have already directed, under date the 22d September (No. 7) 1847, with respect to all future shipments of experimental cotton, that the bills of lading should be made out in our favour, and the cotton consigned to the care of Mr. William Rathbone, our authorised agent at Liverpool. We have recently resolved, at the request of the Manchester Commercial Association, that a portion of all the cotton consigned to us should be forwarded for sale in that town,

21st Sept. 1847.

I.

Bengal and
North Western
Provinces.

in order that the spinners and manufacturers of the neighbourhood might have the means of becoming acquainted with its quality. We shall adopt the same course with respect to the cotton supplied by Mr. Bell; and we shall be prepared to take into consideration any application which he may make for placing a portion of it in the hands of any parties whom he may name as possessing his confidence, in order that he may have full reason to be satisfied that all due means are taken for bringing it properly under the notice of the manufacturers.

7. We transmit herewith, for communication to the Lieutenant-governor, 25 copies of a memorandum which has been submitted to us by Dr. Royle, which contains much valuable information in respect to the results of the experiments for introducing the American description of cotton into different parts of India, and for improving the indigenous cotton, and also with regard to the probability of Indian cotton entering into a successful competition with the produce of America in the English market.

8. We take this opportunity of forwarding to you, in continuation of para. 1 of our despatch dated 2d June (No. 4) 1847, copies of the account sales of the cotton shipped to us on board the vessels "Amwell" and "Monarch."

London, 20 October 1847. We are, &c.
(signed) *H. St. G. Tucker,*
J. L. Lushington,
&c. &c. &c.

Sir,

London, 21 September 1847.

At your request I have examined the small specimens of cotton from Agra.

The cotton is perfect as respects cleanness and colour, but the staple is short; therefore scarcely suitable for general purposes. I do not think it has been much injured in the process of cleaning; if the staple were a little longer and equal in strength to the samples, there could be no doubt, I think, of such cotton entering largely into competition with American growth, provided it could be produced in quantity. The present value of these specimens is about 6 *d.* to 6 $\frac{1}{2}$ *d.* per lb., the price of middling to fair American, which now rule $\frac{1}{2}$ *d.* per lb. lower than on the 1st instant.

Dr. Royle, &c. &c.

I am, &c.
(signed) *Jas. R. Tetley.*

Revenue Department.—21 March (No. 2) 1848.

Our Governor-General of India in Council.

Para. 1. THE letters and paragraphs referred to in the margin* relate to the measures now in progress under the superintendence of Mr. H. H. Bell, for procuring an improved description of cotton from the North-west Provinces of the Bengal Presidency.

2. We have been advised by Messrs. Rathbone Brothers & Company of the arrival at Liverpool of the first consignment of this cotton, amounting to 1,658 bales and 5 half bales, per ships "Surat" and "Guisachen." We enclose a copy of the valuation of the cotton received by the former vessel, and also copies of the reports furnished by Mr. Bazley, chairman of the Manchester Chamber of Commerce, and Mr. Aspinall Turner, chairman of the Manchester Commercial Association. From these you will learn that the cotton, although in better condition than that usually imported from Bengal, is so deficient in staple as to be quite unfit for spinning purposes, and that it can only be disposed of at a reduced price for exportation. We have authorised Messrs. Rathbone to dispose of this cotton at any price which they can obtain, not below 4 *d.* per lb., and we shall hereafter furnish you with a copy of the account sales.

3. As

* Letter from Governor-General, dated 4 October (No. 23.) 1847; Letter, dated 18 December (No. 20.) 1847; Letter, dated 31 December (No. 22.) 1847; Narratives, North Western Provinces, dated 2 December (No. 5.) 1846, para. 28; Narratives, North Western Provinces, dated 15 March (No. 1.) 1847, paras. 47 and 48; Narratives, North Western Provinces, dated 12 May (No. 2.) 1847; paras. 44 to 46; Narratives, North Western Provinces, dated 29 June (No. 3.) 1847, para. 41.

3. As the shortness of staple which renders this cotton of little value in the English market is a defect which, as it appears to us, cannot be remedied by the means proposed to be adopted by Mr. Bell, we desire that the experimental measures under his superintendence may be brought to as speedy a close as possible.

4. We have just received samples of the cotton grown by Mr. Bell in the year 1847, with a letter from Mr. Thornton, Secretary to the Lieutenant-governor of the North Western Provinces, dated 14th January last. We shall obtain a report on their quality from competent persons, and forward a copy of it for Mr. Thomason's information. We have to observe that the cotton received per "Surat" is very inferior in colour and cleanness to the samples previously forwarded, of which the report of Messrs. Tetley & Sons (transmitted to you with our despatch, dated 20th October (No. 13) 1847) was founded.

London, 21 March 1848.

We are, &c.
(signed) *H. St. G. Tucker,*
J. L. Lushington,
&c. &c.

I.
Bengal and
North Western
Provinces.

REPORT and VALUATION of COTTON per "Surat."

Landed Bales.				Per lb.
2 over.		J	64 bales, fair to good fair, fully fair colour, but little dirt	d.
1 "	"	M	41 bales, fair, fair colour, rather leafy	3 1/2
3 short.	"	DB	25 bales, fair, fair colour, rather leafy	3 1/2
	"	G	23 bales, fair to good fair, fully fair colour, but little dirt	3 1/2
1 over.	"	S	21 bales, fair, fair colour, rather leafy	3 1/2
7 "	"	T	236 bales, fair to good fair, fully fair colour, but little leaf	3 5/8
8 "	"	BC	155 bales, good fair, good colour, but little dirt	3 3/4
		BC	280 bales, nearly good fair, good colour, but little dirt	3 5/8
19 bales over.			845 bales.	
3 bales short.	B			
16 bales over.			16 bales; none landed of this mark.	

This cotton appears similar to that which used formerly to be received under the name of Bengal; it is very short indeed in staple.

Liverpool, 19 February 1848.

REPORT of *Thomas Bazley*, Esq., Chairman to the Manchester Chamber of Commerce.

Chamber of Commerce and Manufactures,
Manchester, 1 March 1848.

Gentlemen,
I HAVE been duly favoured with your letters of the 21st and 29th ultimo, as well as with the samples of East India cotton to which you refer.

The staple of this cotton is so very short, poor, and insufficient, that the spinner could only apply it to the commonest and most inferior purposes, though the clear and open condition of it would render it most desirable.

If the quality were as good as the condition, this cotton would be a great boon to our important trade; but its general merits place it so much below the useful American class that it must be greatly improved before it could rank with the latter.

Yours, &c.
(signed) *Thomas Bazley.*

Messrs. Rathbone Brothers & Co.

REPORT of *J. A. Turner*, Esq., Manchester.

Commercial Association, Manchester,
2 March 1848.

Dear Sirs,
I HAVE just returned from London, where I have been engaged chiefly in connexion with the subject of cotton cultivation in India; and I am compelled to set off again to-night to give evidence to-morrow before Mr. Bright's Committee.

This must account for my seeming neglect in not sending you a report on the Agra cottons. I did, however, report upon them to the Chairman and Deputy Chairman, with whom I had a long interview on Monday, and I am in such great haste to-day that I must

I.
Bengal and
North Western
Provinces.

content myself with saying, generally, that the whole of these cottons are unsuited for spinning purposes in this country; they have not one good point about them, being of bad colour, short staple, and by no means free from dirt and stained locks of cotton. They may be sold for export, but I think they could not be sold here. If the India Company are spending money in the cultivation of such rubbish as this, they may as well give up the attempt at once.

Messrs. Rathbone Brothers & Co.
Liverpool.

Yours, &c.

(signed) J. A. Turner.

P.S.—As to value, I should think $3\frac{1}{2}d.$ to $3\frac{1}{2}d.$ about the rate, but I would not buy them at $3d.$

REPORT on the Quality of 836 Bales of Cotton landed from the "Monarch" and "Amwell," from Calcutta, imported by order of the Honourable East India Company.

THE staple is very much cut by the machine used in cleaning the cotton from the seed. The native Bengal cotton is the shortest of any grown in India, and in very limited consumption in consequence; it follows, of course, that any injury done to the staple of such renders it almost unfit for spinning even the coarsest fabrics, which is the case with the cotton now under examination; it is well cleaned from the seed; there is, however, much small leaf left in it; it is white, which is so far in its favour, but on the whole, can only be used by mixing with a better quality, or for wadding.

The present nominal value is as under; viz.

Per "Monarch,"	∇K 273 bales, very short and uneven staple, much small leaf, very few seeds, white	- - -	$4\frac{1}{2}d.$ per lb.
	∇H 133 ditto	- - ditto - - ditto	- - - " "
	∇A 70 ditto	- - ditto - - ditto	- - - " "
Per "Amwell,"	69 ditto	- - ditto - - ditto	- - - " "
	∇B 291 ditto, less cut and rather cleaner	- - -	$4\frac{1}{2}d.$ "

The cotton *ex* "Monarch" is landed in good condition, but that per "Amwell," one half of the bales are more or less damaged by sea water.

(signed) J. R. Tetley & Son.

Revenue Department, 19 July (No. 6) 1848.

Our Governor-General of India in Council.

Para. 1. THE letters and paragraphs referred to in the margin,* report matters connected with the cultivation of cotton in the North Western Provinces, with the exception of the experiments under the superintendence of Mr. H. H. Bell, on which subject we addressed you last on the 21st March (No. 2) 1848.

2. We forward to you herewith copies of the account sales of the cotton shipped to us on the vessels "Amwell" and "Monarch."

3. From the papers transmitted with our Governor-general's letter of the 14th August (No. 11) 1847 it appears that the Jullundur Doab offers no peculiar advantages for the cultivation of cotton over those possessed by other districts of the North Western Provinces, and we are satisfied that it is not expedient for Government to interfere for its encouragement.

4. We forward herewith copy of the report by Messrs. Tetley & Son on the sample bale of Jullundur Doab cotton, which was forwarded to us by the Government of Bombay on the "Malacca."

5. We have perused with interest the paper furnished by Mr. H. H. Bell, (forwarded with your letter of the 25th March (No. 5) 1848), in reply to our queries regarding the extent to which India might be capable of supplying cotton in the event of an increased demand for it in Europe.

6. The information furnished in paras. 47 to 49 of the Agra narrative, dated the 12th May 1847, is interesting, as tending to show that the cultivation of cotton in Bundelcund has not fallen off, but that the increased consumption of cotton

* Public letter, dated 20 March (No. 11) 1847, para. 7; Public letter, dated 10 December (No. 51) 1847, para. 33; Public letter, dated 11 March (No. 17) 1848, para. 17; Revenue letter, dated 26 June (No. 6) 1847, para. 19; Governor-General's letter, dated 14 August (No. 11) 1847, whole; Revenue letter, dated 16 October (No. 15) 1847, whole; Revenue letter, dated 25 March (No. 5) 1848, whole; Agra Public Narrative, dated 20 October (No. 3) 1846, para. 23; Revenue letter, dated 2 December (No. 5.) 1846, para. 29 to 32; Revenue letter, dated 15 March (No. 1) 1847, para. 49 to 52; Revenue letter, dated 12 May (No. 2.) 1847, para. 43, and 47 to 50; Revenue letter, dated 29 June (No. 3) 1847, paras. 39, 40, 42 to 44; Bengal Secretary's letter, dated 5 January 1847.

cotton manufacture had taken off all that was before exported, and had kept pace with the increasing import. "Every inquiry," it is stated, "went to prove that the people were more numerous than they had been, and were much better clothed."

7. With the paragraphs, noted in the margin,* are transmitted the monthly reports of the experimental cultivation of cotton in the Dacca district, under the superintendence of Mr. Price. The results hitherto obtained appear to hold out but little prospect of ultimate success, and we fear that the apprehensions which you express in your letter of the 4th September (No. 12) 1847, of the necessity of discontinuing the experiment are well founded.

8. We transmit to you herewith copy of the report of Messrs. Tetley & Son on the samples of Dacca cotton, forwarded to us per ship "Ellenborough," from which you will learn that they are of such short staple as to be unsuitable for home consumption, and only fit for wadding.

London, 19 July 1848.

We are, &c.,
(signed) *J. L. Lushington.*
A. Galloway.

I.
Bengal and
North Western
Provinces.

ACCOUNT SALES of 360 Bales Cotton, *ex* "Amwell," from Calcutta, on Account of the Honourable East India Company, per *J. R. Tetley & Son.*

1847: 17 June.	Bales.	Bales.	£. s. d.	£. s. d.
	69, Lot 54 - - - 10 - - - 1,964 at 4½ d. per lb. -		37 16 11	
	" 55 - - - 10 - - - 1,999 " - - -		38 10 5	
	" 56 - - - 10 - - - 2,009 " - - -		38 14 4	
	" 57 - - - 11 - - - 2,205 " - - -		42 9 10	
	" 58 - - - 3 - - - 538 4½ d. - - -		10 1 9	
	" 59 - - - 10 D.C.1 2,030 " - - -		38 1 3	
	" 60 - - - 7 " 1 1,436 " - - -		26 18 6	
	" 61 - - - 6 " 2 1,202 3½ d. - - -		18 3 1	
	" 62 - - - 2 " 3 403 2½ d. - - -		4 16 6	
				255 12 7
	291, " 63 - - - 10 - - - 2,098 4½ d. - - -		41 10 5	
	" 64 - - - 10 - - - 2,107 " - - -		41 14 -	
	" 65 - - - 10 - - - 2,124 " - - -		42 - 9	
	" 66 - - - 10 - - - 2,071 " - - -		40 19 9	
	" 67 - - - 10 - - - 2,096 " - - -		41 9 8	
	" 68 - - - 10 - - - 2,096 " - - -		41 9 8	
	" 69 - - - 10 - - - 2,082 " - - -		41 4 1	
	" 70 - - - 10 - - - 2,085 " - - -		41 5 3	
	" 71 - - - 10 - - - 2,087 " - - -		41 6 1	
	" 72 - - - 10 - - - 2,104 " - - -		41 12 10	
	" 73 - - - 10 - - - 2,117 " - - -		41 18 -	
	" 74 - - - 10 - - - 2,095 " - - -		41 9 3	
	" 75 - - - 10 - - - 2,101 " - - -		41 11 8	
	" 76 - - - 6 - - - 1,250 " - - -		24 14 9	
	" 77 - - - 6 - - - 1,183 " - - -		23 8 3	
	" 78 - - - 10 - - - 2,100 " - - -		41 11 3	
	" 79 - - - 10 - - - 2,109 4½ d. - - -		40 12 10	
	" 80 - - - 10 - - - 2,113 4½ d. - - -		41 16 5	
	" 81 - - - 10 - - - 2,105 " - - -		41 13 3	
	" 82 - - - 10 - - - 2,113 " - - -		41 16 5	
	" 83 - - - 10 - - - 2,088 " - - -		41 6 6	
	" 84 - - - 10 - - - 2,104 " - - -		41 12 10	
	" 85 - - - 14 - - - 2,940 " - - -		58 3 9	
	" 86 - - - 10 - - - 2,127 3½ d. - - -		34 6 10	
	" 87 - - - 10 - - - 2,135 " - - -		34 9 5	
	" 88 - - - 10 - - - 2,138 " - - -		34 10 5	
	" 89 - - - 12 - - - 2,540 " - - -		41 - 2	
	" 90 - - - 10 - - - 2,152 3½ d. - - -		30 5 3	
	" 91 - - - 11 - - - 2,355 " - - -		33 2 4	
	" 92 - - - 2 - - - 448 2½ d. - - -		4 8 8	1,148 10 9
	Freight, as per Account - - - - -		428 18 10	1,404 3 4
	Dock charges, 14 l. 13 s. 10 d.; 7 l. 11 s. 9 d - - -		22 5 7	
	Public sale do., 39 lots, at 2 s. 6 d. per lot - - -		4 17 6	
	Brokerage, one per cent. - - - - -		14 - 9	
				470 2 8
	Prompt, 18 September 1847 - - - - -		£.	934 - 8

* India letter, dated 4 September (No. 12) 1847, whole; Bengal letter, dated 28 November (No. 19) 1846, para. 23; Bengal letter, dated 24 March (No. 7) 1847, para. 32; Bengal letter, dated 31 May (No. 11) 1847, para. 26; Bengal letter, dated 10 September (No. 17) 1847, para. 37 to 40; Bengal Secretary's letter, dated 27 January 1847.

PAPERS RELATING TO MEASURES TAKEN SINCE 1847

ACCOUNT SALES of 476 Bales Cotton, *ex* "Monarch," from Calcutta, on Account of the Honourable East India Company, per *J. R. Tetley & Son.*

1847:	Bales.		Bales.			£.	s.	d.	£.	s.	d.
17 June -		273, Lot 1	-	-	10 - - 2,072 at 4 ³ / ₈ d. per lb.	-	37	15	5		
		" 2	-	-	10 - - 2,086 4 ¹ / ₄ d.	-	36	18	9		
		" 3	-	-	10 - - 2,105 "	-	37	5	6		
		" 4	-	-	10 - - 2,102 "	-	37	4	5		
		" 5	-	-	10 - - 2,114 4 ³ / ₈ d.	-	38	10	8		
		" 6	-	-	10 - - 2,108 4 ¹ / ₄ d.	-	37	6	4		
		" 7	-	-	10 - - 2,085 "	-	36	18	5		
		" 8	-	-	10 - - 2,124 "	-	37	12	3		
		" 9	-	-	10 - - 2,090 4 ³ / ₈ d.	-	38	2	-		
		" 10	-	-	10 - - 2,117 4 ¹ / ₄ d.	-	37	9	9		
		" 11	-	-	10 - - 2,090 "	-	37	-	2		
		" 12	-	-	10 - - 2,122 "	-	37	11	6		
		" 13	-	-	10 - - 2,114 "	-	37	8	8		
		" 14	-	-	10 - - 2,104 4 ³ / ₈ d.	-	38	7	1		
		" 15	-	-	10 - - 2,117 4 ¹ / ₄ d.	-	37	9	9		
		" 16	-	-	10 - - 2,106 "	-	37	5	10		
		" 17	-	-	10 - - 2,100 "	-	37	3	9		
		" 18	-	-	10 - - 2,116 "	-	37	9	5		
		" 19	-	-	10 - - 2,135 4 ³ / ₈ d.	-	38	18	4		
		" 20	-	-	10 - - 2,120 4 ¹ / ₄ d.	-	37	10	10		
		" 21	-	-	10 - - 2,117 "	-	37	9	9		
		" 22	-	-	10 - - 2,107 4 ³ / ₈ d.	-	38	8	2		
		" 23	-	-	10 - - 2,096 4 ¹ / ₄ d.	-	37	2	4		
		" 24	-	-	10 - - 2,110 "	-	37	7	3		
		" 25	-	-	10 - - 2,084 4 ³ / ₈ d.	-	37	19	9		
		" 26	-	-	10 - - 2,095 4 ¹ / ₄ d.	-	37	2	-		
		" 27	-	-	6 - - 1,292 4 ³ / ₈ d.	-	23	11	-		
		" 28	-	-	6 - - 1,171 4 ¹ / ₄ d.	-	20	14	9		
		" 29	-	-	1 D. C. I. 212 4 ¹ / ₈ d.	-	3	12	10		
										1,024	16 8
		183	" 30	-	10 - - 2,048 4 ¹ / ₂ d.	-	38	8	-		
			" 31	-	10 - - 2,027 "	-	38	-	1		
			" 32	-	10 - - 1,989 "	-	37	5	10		
			" 33	-	10 - - 2,047 "	-	38	7	7		
			" 34	-	10 - - 2,053 "	-	38	9	10		
			" 35	-	10 - - 2,014 4 ³ / ₈ d.	-	38	16	3		
			" 36	-	10 - - 2,019 4 ¹ / ₂ d.	-	37	17	1		
			" 37	-	10 - - 2,002 "	-	37	10	9		
			" 38	-	10 - - 2,027 "	-	38	-	1		
			" 39	-	10 - - 1,983 "	-	37	3	7		
			" 40	-	10 - - 2,049 "	-	38	8	4		
			" 41	-	10 - - 2,004 "	-	37	11	6		
			" 42	-	7 - - 1,408 "	-	26	8	-		
			" 43	-	5 - - 940 "	-	17	12	6		
			" 44	-	1 D. C. I 214 4 ¹ / ₄ d.	-	3	15	9		
		70	" 45	-	10 - - 1,964 4 ³ / ₈ d.	-	37	16	11		
			" 46	-	10 - - 1,978 4 ¹ / ₂ d.	-	37	1	9		
			" 47	-	10 - - 1,951 "	-	36	11	7		
			" 48	-	10 - - 1,990 4 ³ / ₈ d.	-	38	7	-		
			" 49	-	10 - - 1,962 4 ¹ / ₂ d.	-	36	15	9		
			" 50	-	10 - - 1,960 4 ³ / ₈ d.	-	37	15	5		
			" 51	-	6 - - 1,166 4 ¹ / ₂ d.	-	21	17	3		
			" 52	-	3 - - 554 4 ¹ / ₂ d.	-	10	7	9		
			" 53	-	1 - - 202 4 ¹ / ₄ d.	-	3	11	6		
										764	- 1
			Freight as per Account	-	-	-	273	19	10	1,788	16 9
			Dock charges, as per bills: £.15. 8 s. 4 d.; £.13. 15 s. 6 d.	-	-	-	29	3	10		
			Public sale charges, 53 lots, at 2 s. 6 d.	-	-	-	6	12	6		
			Brokerage, 1 per cent.	-	-	-	17	17	9		
										327	13 11
			Prompt, 18 September 1847	-	-	-	-	£.		1,461	2 10

(Errors excepted.)

London, 17 September 1847.

(signed) *J. R. Tetley & Son.*

London, 15 June 1848.

I.
Bengal and
North Western
Provinces.REPORT on Two Bales of Cotton, *ex* "Ellenborough," Close, from Calcutta, containing Ten separate Parcels imported by the Honourable East India Company.

		Present Value.
No. 1, Bale F, Nos. 3 & 5.—Two samples, short staple, clean, good colour		3 $\frac{1}{4}$ d. per lb.
" 4.—One sample, very short and coarse - - -		2 $\frac{3}{4}$ d. "
D 9.—One sample, very short and coarse; a little leaf, white - - - - -		3 d. "
T 8.—One sample, middling staple; a little leaf, rather high colour - - - -		3 d. "
No. 2, Bale R 1.—One sample, ditto - - - ditto - - -		3 d. "
A 6.—One sample, short staple, clean, good colour		3 $\frac{1}{4}$ d. "
T 7.—One sample, ditto; a little leaf, ditto - - -		3 d. "
R 2.—One sample, ditto, rather inferior - - -		2 $\frac{3}{4}$ d. "
B 10.—One sample, fair staple, clean, and not cut -		3 $\frac{1}{2}$ d. "

The above being generally of very short staple, are not suitable for home consumption; such like are only taken for wadding.

(signed) J. R. Tetley & Son, Brokers.

Revenue Department, 27 June (No. 4) 1849.

Our Governor-General of India in Council.

Para. 1. THE communications referred to in the margin* report the further proceedings which have been adopted with the object of improving the cultivation and preparation of cotton, principally in the North Western Provinces of the Bengal Presidency.

2. Under the instructions contained in our despatch of the 21st March (No. 2) 1848, the experiments in progress under the management of Mr. H. H. Bell, of Agra, have been discontinued. We lament the failure in which the attempt to produce from the indigenous plant an article suited to the wants of the manufacturers of this country has resulted, but we at the same time give full credit to the zeal and public spirit which has characterised Mr. Bell's exertions. We desire that when all the stock of cotton on hand shall have been disposed of, you will furnish us with a statement showing the pecuniary results of the experiment.

3. Much interesting information has been collected on the subject of the cotton cultivation and trade in Malwa, Rajpootana, and other native states, on which no particular observations are now required from us. We think, however, that the result of the inquiries instituted by Mr. Allen into the transit duties on cotton imported into Agra from foreign territories, and communicated to the Lieutenant-governor of the North Western Provinces in his letter of the 16th March 1848, should not be lost sight of. The heavy duties levied by native princes and chiefs on the transit of cotton must materially affect the trade in that article, and it would be desirable to take advantage of any suitable opportunity to induce them to place these imposts on a more moderate footing.

4. We approve the arrangements which have been made with Mr. Mather, the engineer, who has been engaged in the construction of an improved cotton-cleaning machine on the principle of the native churka, which is supposed to be peculiarly suited to the indigenous cotton, and of the success of which very sanguine

* Letter from Governor-general, dated 14 August (No. 12) 1847. Letter from Government of India, dated 5 February (No. 1) 1848; 18 March (No. 4) 1848; 25 March (No. 6) 1848; 13 May (No. 9) 1848; 4 July (No. 13) 1848; 15 July (No. 14) 1848; 12 August (No. 16) 1848; 11 September (No. 18) 1848; 11 November (No. 24) 1848, para. 14; 18 November (No. 25) 1848. Home Department, 14 August (No. 41) 1848, para. 28; 21 October (No. 56) 1848; 24 November (No. 61) 1848, para. 26. From Bengal, 13 January (No. 3) 1848, para. 32; 23 May (No. 7) 1848, para. 36. North Western Provinces Narratives, dated 15 October (No. 4) 1847, paras. 48 and 49; 20 December (No. 6) 1847, paras. 53 to 59; 16 February (No. 1) 1848, para. 39; 30 May (No. 2) 1848, paras. 47 to 58; 24 October (No. 3) 1848, 71 to 79.

I.

Bengal and
North Western
Provinces.

sanguine expectations appear to be entertained, We desire that when its merit shall have been sufficiently tested, you will furnish us with a report on the result.

5. We shall shortly forward to you, for trial in India, some machines which have been recently invented in this country, which being portable, cheap, and easily worked, are intended to be used by the cultivators in their own dwellings, and have been denominated "Cottage saw-gins."

We are, &c.

(signed) *A. Galloway,*
J. Shepherd,
&c. &c.

London, 27 June 1849.

Revenue Department, 13 April (No. 2) 1852.

Our Governor of the Presidency of Fort William, in Bengal.

forwarding 200
copies of a work by
Dr. Royle on the
culture and com-
merce of cotton in
India.

WE have to acquaint you that we have forwarded by the "Plantagenet," 200 copies of a work by Dr. Royle, on "The Culture and Commerce of Cotton in India," the price of which in this country is 18s. per copy. We desire that, after retaining as many copies as you may deem necessary for the use of the public departments under your government, and that of the North West Provinces, the remainder may be sold on the public account.

(signed) *J. Shepherd,*
J. W. Hogg,
&c. &c.

London, 13 April 1852.

EXTRACT Agra Revenue Narrative (North West Provinces), dated 12 May (No. 2) 1847.

ev. Pro., Nov.
46, Nos. 4 and 5.

44. The Lieutenant-governor ascertained from personal communication with Mr. Bell that the quantity of cotton produced by him from the fields for the cultivation of which he had made advances would be less than was expected. The operations had been commenced too late in the season to admit of the purchase of a sufficient supply of Bagchenee seed, and the yield of the fields which had been sown had turned out to be less than was at one time anticipated. The success of the enterprise was, however, supposed from the first to turn upon the possibility of procuring a sufficiently large supply of raw cotton, to enable the manufacturers in England to give it a fair trial with machinery. It became, therefore, an object to make good the deficiency by any means that might present themselves. It seemed probable that this might be effected by the purchase of Bagchenee and other superior cottons, care being taken in the selection of the article, and in securing its faithful delivery according to agreement. Instructions were accordingly issued to Mr. Allen to consider Mr. Bell authorised to purchase cotton, within the limits already prescribed, according to his discretion. The cotton so purchased would be charged for in the same way as that which had been grown upon advances, but it would be kept separate, and distinguished in the shipment by peculiar marks. Its price also in the accounts would be kept separate.

45. The operations seemed to have reached that point when it would be better that the stock belonging to the Government and the establishment hitherto maintained for the conduct of the experiment should be entirely made over to Mr. Allen for Mr. Bell's use. Instructions were accordingly issued to Mr. Jackson to make over to Mr. Allen any cotton which he might still have unshipped, together with all the machinery and implements belonging to the Government; such part of the establishment as he might not require he would make over to Mr. Allen, who would decide whether it should be retained or paid up and discharged. The cotton which Mr. Allen would receive would all be ginned; and he would leave it to Mr. Bell to decide whether it should be sold here or shipped to England, and, if the former, to sell it to the best advantage. As to the machinery, Mr. Allen was requested to cause such as might be required to be maintained, or to be removed to any other position which might

might be found more commodious for the present operations; whatever might not be required, should be stored in any convenient place, and under proper custody.

46. Mr. Mackenzie not having furnished the report which was required from him of the working of the saw-gins, Mr. Jackson was requested to call upon him for that report, and also to require him to furnish any further information which Mr. Allen or Mr. Bell might require, in the event of his (Mr. Mackenzie's) services not being transferred to them.

EXTRACT from the Proceedings of the Honourable the Lieutenant-Governor of the North Western Provinces, in the Revenue Department, dated 2 November 1846.

The following letters are written:—

(No. 4688.)

No. 4.

From *J. Thornton*, Esq., Secretary to Government, North Western Provinces, Agra, to
C. Allen, Esq.

Sir,

THE Lieutenant-governor has ascertained, from personal communication with Mr. Bell, that the quantity of cotton produced by him from the fields for the cultivation of which he has made advances will be less than was expected. The operations were commenced too late in the season to admit of the purchase of a sufficient supply of Bagchensee seed, and the yield of the fields which were sown has turned out to be less than was at one time anticipated.

Revenue Depart-
ment.

2. The success of this enterprise was however supposed from the first to turn upon the possibility of procuring a sufficiently large supply of raw cotton, to enable the manufacturers in England to give it a fair trial with machinery.

3. It therefore becomes an object to make good the deficiency by any means that may present themselves. It seems probable that this may be effected by the purchase of Bagchensee and other superior cottons, care being taken in the selection of the article, and in securing its faithful delivery according to agreement.

4. You will therefore be pleased to consider Mr. Bell authorised to purchase cotton, within the limits already prescribed, according to his discretion. The cotton so purchased will be charged in the same way as that which has been grown upon advances, but it will be kept separate, and distinguished in the shipment by peculiar marks; its price also in the accounts should be kept separate.

5. The operation seems now to have reached that point when it is better that the stock belonging to the Government and the establishment hitherto maintained for the conduct of the experiment should be entirely made over to you for Mr. Bell's use. Instructions will accordingly be issued to Mr. Jackson to make over to you any cotton which he may still have unshipped, together with all the machinery and implements belonging to the Government. Such part of the establishment as he may not require he will also make over to you, and you will decide whether it shall be retained or paid up and discharged. You will be pleased to have a list made of the stock which may be made over to you.

6. The cotton which you will receive will all be ginned, and you will leave it to Mr. Bell to decide whether it shall be sold here or shipped for England, and if the former, to sell it to the best advantage.

7. As to the machinery, you will cause such as may be required to be maintained, or to be removed to any other position which may be found more commodious for the present operations. Whatever may not be required should be stored in any convenient place, and under proper custody.

8. A copy of the letter addressed to the Collector is forwarded for your information.

I have, &c.

Agra, 2 November 1846.

(signed) *J. Thornton*,
Secretary to Government N. W. P.

(No. 4687.)

No. 5.

From *J. Thornton*, Esq., Secretary to Government, North Western Provinces, Agra, to
C. C. Jackson, Esq., Collector of Agra.

Sir,

I AM desired to forward, for your information and guidance, the annexed extract (para. 5) of a letter addressed to Mr. C. Allen, regarding the cotton in store, and the machinery and the establishment hitherto maintained for the conduct of the experiment.

Revenue Depart-
ment.

I.

Bengal and
North Western
Provinces.

2. You will be good enough to make over to Mr. Allen such cotton as you may have unshipped and all the machinery and implements connected with the works: you will decide what part of the establishment you may wish to retain for other purposes, and you will make over the remainder to Mr. Allen.

3. Mr. Mackenzie has not yet furnished the report which was required from him of the working of the saw-gins. You will be pleased to call upon him for this report, and also to require him to furnish any further information which Mr. Allen or Mr. Bell may require, in the event of his services not being transferred to them.

Agra, 2 November 1846.

I have, &c.
(signed) *J. Thornton*,
Secretary to Government N. W. P.

Home (Revenue) Department, Simla, the 1st July (No. 9) 1847.

To the Honourable the Court of Directors of the Honourable East
India Company.

Honourable Sirs,

IN reference to your despatch of the 25th November last, No. 14, conveying your sanction to the experimental cotton cultivation near Agra, and desiring that the produce may be shipped to Liverpool, and consigned to Mr. W. Laird, of that city, I have the honour to transmit herewith the correspondence marginally cited*, explanatory of his Honor the Lieutenant-governor's further proceedings in the matter.

2. It appears that samples of the cotton, which it is intended to ship this year, have been already forwarded overland to the India House; and I would recommend that, as proposed by the Lieutenant-governor, your Honourable Court will not insist on the consignment of this cotton to Mr. Laird.

I have, &c.
Simla, 1 July 1847. (signed) *Hardinge*.

EXTRACT India Revenue Narrative (North Western Provinces), dated 15 October (No. 4) 1847.

49. A representation from Mr. Bell on the subject of the intended arrangements for disposing of his consignments was forwarded to the Supreme Government for transmission to England, together with a brief account of the contemplated operations during the current year, the details of which it is unnecessary to describe, as the whole subject will have been ere this brought to the notice of the Honourable Court.

EXTRACT from the Proceedings of the Honourable the Lieutenant-Governor of the North West Provinces in the Revenue Department, dated 12 June 1847.

No. 123. From *H. H. Bell*, Esq. to *John Thornton*, Esq., Secretary to the Government, North Western Provinces, Agra.

Sir,

I HAVE the honour to acknowledge the receipt of your letter, No. 1094, of the 8th instant. In replying to it I request permission to advert briefly to the circumstances under which the arrangements sanctioned by the Honourable Court of Directors originated, and the understanding on which I engaged in them.

2. I had long been impressed with a perfect conviction that nothing but care and attention was requisite for the production in India of cotton sent for our home manufactories, when, nearly 10 years since, on the distribution of some American seed by the Agricultural Society of Calcutta, I entered into a series of experiments in its cultivation. The experience of several years satisfied me that it was a mistake to persevere in our unsuccessful trials with foreign seed, and I became persuaded we must, in the first instance at least, depend on indigenous descriptions; since then there is no cotton of reputed superior quality within the North Western Provinces and Oude, and particularly of the states to the south-west, of which I have not, at considerable expense, obtained the seed, and given it a fair trial.

3. The

* To Secretary North Western Provinces, No. 25, dated 30 January 1847; from Secretary North Western Provinces, No 2517, dated 12 June 1847.

3. The result of my numerous experiments were three descriptions of cotton, sufficiently promising to induce me to ship a few bales of each to Liverpool, to ascertain their estimation in that, the most important market; and the report from thence was such as to lead me to think we were certainly in the right path, particularly as the cotton selected as suitable had become known to the ryots in my neighbourhood, and the extremely difficult task of breaking through their prejudices by any novelty no longer existed, and the introduction into general cultivation was thus comparatively easy. Perfectly aware, from the published correspondence of the Honourable Court of Directors, and from the extremely able minute of Mr. St. G. Tucker of the 17th November 1828, in the opinions expressed in which I entirely coincided, of the deep interest taken by the Honourable Court in a measure of such vast national consideration, equally important to the commerce of Great Britain and to the territories under their immediate control, I felt confident of the readiness of Government to countenance and sanction any measure which justified an expectation of successful issue.

4. It is unnecessary to recapitulate the motives which persuaded me that the intervention of Government, which I admit I do not think generally desirable in such matters, was essential to the general introduction into the Doab of that description of cotton approved in Liverpool, to replace the inferior quality at present grown. Satisfied that it was essential, I took the liberty of placing before the Honourable the Lieutenant-governor the information I had collected; and in submitting the suggestions my experience afforded, I proffered my services for the experiment, leaving all remuneration contingent on success and the pleasure of Government. Immediate personal advantage formed no part of my inducement to undertake a laborious and troublesome experiment, in which circumstances had contributed to render my co-operation not unattended with advantage. I was, and am, indifferent to the pecuniary result to myself; my ambition was to be the instrument of a measure which, if successful, would be of inconceivable value to England and India; and the only matter of any consideration with me was the understanding that the conduct of the operations confided to me should not be uninterfered with, and of these I hold the sale in England to be an essential part. I had attentively remarked that the various reports on India cotton, made by the Liverpool brokers, were entirely conflicting, and had been struck with the great discrepancy of opinion on the same sample, nor, with my commercial experience, could I be unaware how much this is frequently the result of prepossession or prejudice, and therefore I felt the utmost anxiety that the persons to whom the sale in that city was entrusted should personally be known to me, and should be those in whose power and desire to effect the favourable disposal of the consignment I felt entire confidence.

5. I may be permitted respectfully to remark, that on no other terms would I have undertaken to carry through the plan which met the concurrence of Government; and I am persuaded that it will neither be a source of surprise nor dissatisfaction to the Honourable Court that such should have been the case, or that I still adhere to this resolution with the most perfect respect. I should prefer relinquishing the charge in which I cordially engaged, rather than continue the incomplete management desired, and I adopt this determination reluctantly after attentive consideration, without the remotest idea of disparaging the gentleman whom the Honourable Court point out as the consignee. It is possible I might think, in the event of an unfavourable report from Liverpool, that but for this deviation from the original understanding a different result would have arisen; and I confess I should have imagined that the Honourable Court would have preferred an arrangement which took from me all pretext for assigning any cause for disappointment, should this occur, which might free me from responsibility. I am perfectly ready to forego all remuneration for the trouble I have taken, nor will any other feeling be mixed with the regret I experience at circumstances having created an obstacle to the progress in my hands of a great experiment, of which every additional experience leads me to think more favourably. I am persuaded his Honour will do justice to the zeal with which I have endeavoured to perform my part; and my sincerity and confidence are sufficiently evinced by the considerable personal outlay in which I engaged (nearly 8,000 rupees), for concentrating the works connected with the preparation of the cotton for the home market, solely for this object.

6. I imagine that an allusion to the proceedings that have taken place will not be considered unwarrantable or misplaced.

7. I have already laid before Government the cause which prevented me from fully availing, during the past year, of the amount sanctioned for my experiments in the introduction of the Baug Cheenee cotton into the Doabs. I should have been glad if I could have obtained seed for a more extensive operation; but the result of my limited cultivation has entirely supported my views, that this cotton may be easily introduced to replace the inferior Desee cotton of the provinces on the east side of the Jumna. The Baug Cheenee has been more than equally productive, and proved itself at least as hardy; and, which seems to me of great importance, there is no perceptible deterioration of quality as compared with the produce of the Baug Cheenee villages of the past season and from our own crop. We are now perfectly supplied with seed for the full cultivation contemplated, although I took immediate measures, as the Lieutenant-governor suggested, for the provision of seed from the Baug Cheenee estates for part of the ensuing sowings.

8. It is known to the Government that the basis of my experience of the Baug Cheenee cotton, independently of the estimation in which it is held here, is the report on its quality
296—Sess. 2. M M by

I.

Bengal and
North Western
Provinces.

by a very respectable Liverpool house. But I believe I have expressed, and I wish to be distinctly understood, that I consider the quality of this only as our starting point; and, although I hold that it is of great consideration to have secured a cotton which if not desirable is still serviceable, this is but the first step. I think I have in the past year discerned amidst my cultivation two other qualities of far higher promise. The muster of each I shall send to Liverpool, and my expectation is that each will be considered far superior to the Baug Chenée, as in my opinion it is preferable to any New Orleans I have seen raised in this country. Under any circumstances I shall continue the cultivation of these descriptions. Of the one, I shall have 100 beegas this year, and under an average produce, seed for 4,000 beegas next year; and subsequent cultivation will be *ad libitum*, and the same progression one year later may be predicated of the other description. The plants from which the seed was taken were equally luxuriant, hardy, and productive as the Baug Chenée, and, what is of vast importance, come even earlier to maturity. I confess, however, I look much further, and am convinced that attention and exertion will do all that can be desired, and that there are scarcely any limits to the results that may be anticipated from the enlightened and comprehensive views of the Honourable Court of Directors, carried into execution by the administrative ability of their local government. The great evil in this country is the unprogressive character of the population, and it is their unexcited apathy alone that has hitherto marred its capacity of production, and, with this, limited the power of consumption of 120 millions of individuals, whose clothing is almost exclusively of the description of which the unequalled machinery and manufacturing skill of England may monopolise the supply.

9. With respect to Baug Chenée cotton, I consider it now quite established that under advance,—on which, directly or indirectly, three-fourths of the agriculture of this country is conducted,—the ryot can, on an average, contract with profit for delivering at rates which will render the Company's maund of clean cotton at 7 s. Perfectly persuaded that, without the introduction of the saw gin into general use, we should greatly risk the successful issue of our attempt to render India a source of supply for the home markets, I perseveringly insisted on the engagements being for kupas, or unseeded cotton, and pertinacious as the adherence of the natives is to their accustomed practice, my personal influence, arising from long residence, enabled me to carry my point. I consider that I have now established the system in my own neighbourhood, from whence it may be easily extended throughout the district.

10. The low prices of cotton this year, coupled with the apparent diminished production in America, led me to think it desirable to select those cottons from the native states to the westward which are in the highest repute, and bear the highest prices in this market, for the employment of such part of the surplus of the amount sanctioned for my experiment with the Baug Chenée cotton, which from want of seed had been so limited. No speculative feeling was connected with this suggestion. Its intent was to ascertain whether any of these cottons were superior to the Baug Chenée, in order that their cultivation might be attempted in the Honourable Company's territories; and the only mode of obtaining unmixed cotton, on which alone a correct judgment could be formed, was by a recurrence to the plan of growth. With advertence to the ultimate and main object to which the views of the Honourable Court were directed, the estimation in which these cottons would be held in the home market was the essential point; and from the remarks of the Liverpool house to which was consigned the shipment that led to the present experiment being made, it was evident that the full market price is never obtained for any limited samples. I therefore proposed to myself to carry the several invoices to such an extent as might be considered necessary for eliciting the true market rates, but to restrict myself absolutely to such point; and the absence of any desire to speculate is sufficiently manifested by the extent of shipments scarcely exceeding one-half of the sanctioned outlay. I cannot at the moment state precisely the quantity of cotton or the cost and charges; but it will, as nearly as may be, amount to 6,000 maunds, costing, charges included, about 54,000 rupees. On permission being obtained, I sent proper people to the most reputed local bazaars and villages, in order to procure unmixed cotton; but the result has given me none that I think equal to the Baug Chenée, and this opinion is strengthened by the fact that a small parcel of the latter cotton which came into this market was instantly taken at about $7\frac{1}{2}$ per cent. higher than the rates paid for the other best reputed cottons. It may not be altogether irrelevant to remark here, nor will the matter be considered unworthy of regard by the Honourable Court of Directors, ever alive to any measure that can promote the welfare of the people committed to their charge, that under no circumstances can the proceedings sanctioned by Government fail to be attended with great benefit to the country. Even if I were mistaken in my sanguine hopes, and the ultimate aim were not reached, as I think it will be, by progressive steps, it is still something to the cultivator to replace an inferior by a superior product, and this is effected by the substitution of the Baug Chenée for the inferior cotton grown in the Doab. The same lands yield at least the same quantity, with an excess of value of from 12 to 20 per cent.

11. In a letter addressed to Mr. Allen on the 3d ultimo, and of which, I believe, a copy reached the Honourable the Lieutenant-governor, I explained how I had been prevented from availing myself of the saw gin for freeing the kupas of the past season from the seed, and had been constrained to use the native churkha. Only one gin of 60 saws was in a condition, and that not perfect, to be made use of, and my inquiry for a mechanic who could

could keep these instruments in order has been unsuccessful. I retained, however, some kupas, to afford the means of comparison of the same description of cotton cleaned by the gin and churkha, and, at the suggestion of the Lieutenant-governor, I was about to cause a similar quantity of cotton to be bowed, that this mode of cleaning might also be simultaneously placed before the Liverpool brokers for their opinion. I infer from the denomination that Georgia cotton, formerly called bowed Georgia, prior to the invention of the cotton gin, was thus prepared for the English market; and I know that some trials were made from India of the suitability of bowed cotton for the home market, but they were not persevered in. Whether this arose from the expense of bowing, or any other similar cause, I am unable to say; but I suspect the extreme pressure in the bales would so mat the cotton, that it would render it less fit for English machinery.

12. I have already remarked that the whole of the cotton grown and purchased will not exceed 6,000 maunds; and I may add that more than two-thirds have arrived, and the remainder is also at hand.

13. Of the Baug Cheenee cotton from our own growth, and that purchased at Baug Cheenee, which I proposed to ship under distinct marks, I may say provision has been made of about 2,000 maunds, and the remaining quantity will be made up of different qualities obtained from Tounk, Newraee, Jhulaba, Chankoo-Sheodaspoora, Madhopore, Sillowree, Dhoulpore, Baree, Lalsoute, and some other villages and local bazaars. They are appreciated nearly as consecutively named, but the extreme difference from first to last scarcely exceeds from five to seven per cent.

14. I may here incidentally mention that the local bazaar prices of these varied from 4/3 to 4/8 per local maund to 7/8 of the Company's maund, or 35 seers, or nearly 72 lbs. English weight. The duties and other exactions of transit through the various native states greatly add to the cost on reaching the market; but if any reasonable and general adjustment could be effected with Jeypore, Bhurtpore, and the other smaller states, it is clear the cost of production under which we should meet America would not greatly exceed $1\frac{1}{2}$ d. per lb. I should add that I have ascertained there would be little difficulty in procuring in these several localities the delivery of kupas instead of cotton; and I have laid the foundation for this, in the hope that we could render the gin generally applicable, as I think this of much consideration; for the cotton that is brought into the bazaars is extremely dirty, and the trouble and expense of rendering it comparatively fit for the home market is very heavy, and could scarcely be managed, excepting when the population was very numerous. The loss of weight in this operation is also considerable, and materially adds to the cost of a merchantable commodity.

15. The first point is certainly to render our own province the source of supply, and they will have a considerable advantage over the states to the westward in the diminished cost of transport to a navigable river. But this can only be effected gradually; and if the present price is remunerating to the ryots in the Jeypore and westward states, and their best descriptions of cotton are suitable, if properly cleaned, there would certainly be considerable advantage in an early resumption of our relinquished trade in cotton, as will attract practical attention to the subject. On this account I directed the provision of 600 maunds of Newaree kupas, in order to ascertain if picking from it the fragments of dried leaf and pods, and other impurities, might not be effectually accomplished at a moderate expense prior to passing it through the gin, so that perfectly clean cotton of the best reputed description might reach the home market. My views, as regards the interference of Government in this, are entirely confined to this trifling experiment, which, if it should succeed, will remove all doubt as to the desirableness of the introduction of the saw gins into this country.

16. I shall only further add, that my zeal is unabated, and that nothing could afford me higher gratification than to be in anywise instrumental in carrying out the views of Government. I have from the first maintained that, formidable as competition may be with America—and I am by no means insensible to the difficulty of contesting with them the markets they have occupied—the struggle is not hopeless. It is possible that the reported diminished production in America is the result of reduced cultivation consequent on the extremely low prices that have latterly prevailed; for the capacity of America to maintain a cultivation equal to the local and export demand must not be measured by the cost of production on the luxuriant banks of the Mississippi. We hear much, and probably in many cases very justly, of the boundless plains in which the cultivation may be pursued with all the advantage of a virgin and untaxed soil; but the statistical information afforded by Ure in his work on cotton offers no very exuberant general average productions, and he strikingly remarks the besetting sin of agricultural statements is their exaggeration. It seems to be forgotten that interminable plains are valueless, unless the power of availing of their fertility by cultivation exists; that the difficulty of breaking up new land is extreme; that the population is limited; that in the southern states cotton has in some degree been an enforced cultivation, and may not unlikely be partially relinquished for others, as a consequence of our altered tariff. Above all, it must be remembered that it is slave-labour, necessarily limited; whilst, if this were susceptible of indefinite increase, it would probably only hasten the catastrophe impending over the cotton-cultivating states of the South, from their determined hostility to the growing spirit of opposition to slavery which characterises the present age. Moreover, instead of cowering before American vigour and enterprise,

I.

Bengal and
North Western
Provinces.

which has certainly left no natural advantage unavailed of, which has superadded to these the creation of science, why should we not profit by the example of their activity and intelligence, and meet our rivals with all the advantages their industry has taught us? Whilst we might easily appropriate much that they have called out into existence for facilitating their commercial operations and remedying the high price of labour in their country by steam-boats and railways, we have the vast advantage of a numerous labouring class, capable of rendering great exertions if properly managed, submissive to authority, and at rates of wages less than half the interest of the cost of a slave, setting aside all considerations of food, clothing, and every casualty; to which the latter is necessarily subject.

I am persuaded that the resources of India are yet unknown, and it would be a source of the highest pride to me to concur in the development of any part of them; but I feel that to be useful I must be unfettered, and nothing but this conviction had led me to object to the alteration desired by the letter now replied to.

Agra, 26 March 1847.

I have, &c.
(signed) *H. H. Bell.*

The following letters are written :—

(No. 2518 of 1847.)

No. 124.

From *A. Shakespear*, Esq., Assistant Secretary to Government, North Western Provinces, Agra, to *H. H. Bell*, Esq.

Sir,

Revenue Depart-
ment.

THE Honourable the Court of Directors having, as already stated in Mr. Thornton's letter to you, dated 8 March last, sanctioned the experimental cultivation of cotton under your superintendence, I am now desired to communicate to you the wishes of the Honourable the Lieutenant-governor regarding the operations of the agricultural year now commencing.

2. This cultivation and outlay will correspond with that which was contemplated last year, the extent to be cultivated not exceeding 10,000 beegas, and the total outlay necessary for bringing the cotton into the English market not being more than 1,32,000 rupees.

3. No cotton is to be purchased this year, and none shipped on the account of the Government, except that which has been grown under contract with you, and from seed which you have furnished or approved.

4. The charge of Mr. Mather's services, as well as the cost of ginning over and above that which would have been incurred for cleaning with the churkah, will not be debited to the experiment.

5. The profit on this transaction, after replacing, without interest, the sums advanced, shall be paid over to yourself.

6. It is evidently desirable that the accounts of the season now commencing should be kept distinct from those of the season which has closed. The Lieutenant-governor will be glad to receive from you an account of the disbursements on account of the last season, and of the cotton now under shipment, as well as an estimate of the charge which will be incurred before the cotton can come into the market at Liverpool.

7. I am desired to take this opportunity of acknowledging the receipt of your letter of 26 March last, and of informing you that a copy of it is under despatch to the Honourable the Court of Directors.

I have, &c.
(signed) *A. Shakespear*,
Secy. to Govt., N. W. P.

Head Quarters, 12 June 1847.

No. 125.

(No. 2517 of 1847.)

From *A. Shakespear*, Esq., Assistant Secretary to Government, North Western Provinces, to *H. M. Elliot*, Esq., Secretary to the Government of India with the Governor-General.

Sir,

Revenue Depart-
ment.

I AM desired with reference to the orders of the Honourable Court of Directors in despatch No. 14, dated 25 November 1846, on the subject of the experimental cotton cultivation near Agra, a copy of which was forwarded with your letter, dated 30th January last, to request that copies of the documents noted in the margin* may be laid before the Right Honourable the Governor General.

2. It

* Letter to Mr. H. H. Bell, dated 8 March 1847, No. 1094. Letter from Mr. H. H. Bell in reply, dated 26 March 1847. Letter to Mr. H. H. Bell, dated 12 June 1847, No. 2518. Letter to Mr. C. Allen, dated 31 May 1847, No. 2294.

I.

Bengal and
North Western
Provinces.

2. It will be perceived that sanction was given to the experiment too late in last year to admit of the extension of the cultivation in the degree at first contemplated. Mr. Bell was therefore allowed to purchase sufficient quantities of the best cotton in the native markets, to admit of a fair opinion being formed in England on their merits. The total quantity grown and purchased will not exceed 6,000 maunds, costing, charges included, about 54,000 rupees. Of this about 2,000 maunds are Baug Cheenee, of our own growth and purchased; and it will be observed that this is superior to the other sorts purchased from foreign states inland. Baug Cheenee is the chief town of Pergunah Kurha, which lies between the Chumbul and Koohari Rivers, in the Gwalior territory, on the right of the road from Agra to Bombay, immediately after crossing the Chumbul at Dholepore. The cotton is of a superior quality, and apparently well suited for cultivation in the Doab.

Specimens of all the sorts of cotton which will be shipped this year have been sent overland to the Secretary to the India House.

3. The Lieutenant-governor, whilst he was at Agra, repeatedly visited the premises which Mr. Bell has purchased at his own expense in the city of Agra, for storing, cleaning, and pressing the cotton. The expenditure on account of these premises has been little short of 8,000 rupees. The operations were pursued there vigorously and carefully.

4. Every exertion is making to adopt the ginning apparatus to the cotton of the country, but hitherto without much success. The services of an engineer (Mr. Mather), have now been secured in the room of Mr. Mackenzie, and efforts will not be relaxed to secure this important end.

5. It is hoped that the Honourable Court will not object to permitting Mr. Bell to make his own arrangement for disposing of the cotton in Liverpool. It will be seen that it is a feature of the proceedings to which he attaches considerable importance.

6. An outlay for the year now commencing has been sanctioned similar to that which was contemplated last year. This expenditure will not be requisite beyond the next year at the utmost. A memorandum is added in the margin* of the disbursements on account of the cotton experiment in these provinces, as far as can be gathered from the Agra accounts from the first commencement in 1842-43, up to December 1846.

7. The Lieutenant-governor trusts that these proceedings will meet with the approbation of the Right Honourable the Governor-general, and that the documents now forwarded may be transmitted to the Honourable the Court of Directors, with the benefit of his Lordship's support and recommendation in their favour.

I have, &c.

(signed) A. Shakespear,

Assist. Secy. to the Govt., N. W. P.

Head Quarters, 12 June 1847.

(No. 2519 of 1847.)

No. 126.

From A. Shakespear, Esq., Assistant Secretary to the Government, North West Provinces, Agra, to C. Allen, Esq., Civil Service.

Sir,

I AM desired to forward for your information the accompanying copy of a letter this day addressed to H. H. Bell, esq., on the subject of the experimental cultivation of cotton during the season which is now commencing.

2. The

* The Expenditure in the North Western Provinces on account of the Cotton Experiment :

	1842-43.	1843-44.	1844-45.	1845-46.	May to December 1846.	TOTAL.
Salaries and Allowances of—	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Capt. Bayles, the Superintendent - -	1,887	195	-	-	-	2,082
The American planter - - -	27,281	8,725	10,986	2,869	-	39,861
Messrs. Frost & Mackenzie - - -	380	2,880	3,025	3,788	1,380	11,453
Establishment - - -	6,059	5,120	4,242	2,579	1,485	19,485
Price of stores supplied from the magazine - - -	-	8,066	-	-	-	8,066
Price paid for the purchase of cotton, and freight to Calcutta - - -	-	-	-	18,550	19,026	37,576
Contingencies, building gin-houses, &c. -	45,886	15,086	7,224	7,862	4,906	80,964
TOTAL Expenditure shown in the Books - - -	71,493	40,072	25,477	25,648	26,797	1,99,487
Deduct Sums carried to the credit of experiment - - -	- nil -	1,185	- nil -	1,675	4,465	7,325
NET EXPENDITURE - - - Rs.	71,493	38,887	25,477	33,973	22,332	1,92,162

I.
Bengal and
North Western
Provinces.

2. The officiating Accountant has been desired to hold at your disposal the same sum as last year.

3. With reference to para. 6, I am desired to request that you will afford Mr. Bell such assistance as he may need in the preparation of the accounts. It is desirable that in the accounts for the season just passed, the expense of establishment entertained for ginning, which is not to be charged against the experiment, should be kept distinct from the other items, so that there may be no difficulty at any time in determining what is the cost price of the cotton shipped for England.

I have, &c.

(signed) *A. Shakespear*,
Assist. Secy. to the Govt., N. W. P.

Head Quarters, 12 June 1847.

No. 127.

(No. 2520 of 1847.)

From *A. Shakespear*, Esq., Assistant Secretary to the Government, North Western Provinces, Agra, to the Officiating Accountant, North Western Provinces, Agra.

Sir,

Revenue Depart-
ment.

I AM desired to forward for your information the annexed copy of a letter this day addressed to Mr. Allen, and to request that you will hold at Mr. Allen's disposal for the experimental cultivation of cotton the same sum during the year now commencing, as you did last year.

I have, &c.

(signed) *A. Shakespear*,
Assist. Secy. to the Govt., N. W. P.

Head Quarters, 12 June 1847.

EXTRACT from the Proceedings of the Honourable the Lieutenant-Governor of the North Western Provinces, in the Revenue Department, dated 3 July 1847.

No. 20.

From Mr. *H. H. Bell* to *A. Shakespear*, Esq., Assistant Secretary to the Government, North Western Provinces, Agra.

Sir,

I HAVE had the honour to receive your letter of the 12th instant, intimating to me the desire of the Honourable the Lieutenant-governor as regards the operations of the agricultural year now commencing, with reference to the experimental cultivation of cotton sanctioned by the Honourable Court of Directors, as communicated to me in Mr. Secretary Thornton's letter of 8th March last.

2. I observe that the cultivation and outlay are to correspond with those which were contemplated last year.

3. That no cotton is to be purchased for account of the Government save that which is grown under contract, from seed provided or approved by me.

4. That the charge of Mr. Mather's services, as well as the cost of ginning, over and above that which would have been incurred from cleaning with the churka, will not be debited to the experiment.

5. That the profit on this transaction, after replacing, without interest, the sums advanced, shall be paid over to me.

6. That it is the desire of his Honour the Lieutenant-governor that the account of the ensuing season's operation be kept distinct from those of that now nearly past, and that an account of the disbursements attending these, the quantity of cotton despatched, and an estimate of charges that may be incurred before the cotton comes into market at Liverpool, should be rendered as early as practicable.

7. In reply, I beg you will do me the honour to express to the Honourable the Lieutenant-governor my high sense of the liberality and confidence the arrangement displays, and that you will assure his Honour of my zealous effort in carrying his wishes into execution; every preparatory step that occurred to me has been taken; many engagements have been entered into; and I trust that the whole of the seed provided will be made use of.

8. The accounts of current transactions shall be made up and closed as desired by his Honour. I am afraid this can hardly be done before all July, as we have been thrown back by an unsuccessful attempt of mine to supersede the necessity of rescrowing the bales in Calcutta by performing this here, after the cotton, by continued pressure, had lost part of its elasticity. The saving is of such great importance that this must be managed, nor shall I be deterred from further trial, though the whole of my screws gave way, and subjected me to a loss of some hundred rupees. Two of these are now replaced, and I expect that in all this month the whole of the cotton for the English market will be despatched from Agra.

It

It will then require a short time to clear off the remainder, and dispose of the refuse cotton; but the whole shall be completed in July, and past seasons' accounts closed and accounts rendered.

I.
Bengal and
North Western
Provinces.

Agra, 11 June 1847.

I have, &c.
(signed) H. H. Bell.

No order.

(True extracts.)

(signed) W. Blackburn, Reporter of Proceedings.

EXTRACT from Revenue Narrative, No. 5, dated 20 December 1847.

COTTON EXPERIMENT.

Para. 59. Mr. Allen having submitted, with his remarks, the accounts connected with Mr. Bell's experimental investment of cotton, sanctioned last year, his Honour, in forwarding the papers for communication to the Honourable Court, observed that the consignment would be received in Calcutta at an expense of $3\frac{3}{10}$ d. the lb., but the cost of the home-grown cotton would be, landed in Liverpool, at $4\frac{3}{10}$ d. and $3\frac{1}{2}$ d. per lb. With reference to the representations contained in the Lieutenant-governor's Minute of August 10th last, regarding the transit duties in Rajpootanah, it would be seen from Mr. Allen's report that these duties amount to 20 per cent. on the price of all cotton imported across the north-western frontier. Further details would be required and hereafter submitted on this subject.

Accounts of the
experimental in-
vestment in June
and July. Rev.
Pro., September
1847, Nos. 195 to
200.

EXTRACT from the Proceedings of the Honourable the Lieutenant-Governor of the North Western Provinces, in the Revenue Department, dated 30 September 1847.

From Charles Allen, Esq., Civil Service, to John Thornton, Esq., Secretary to the Government, North Western Provinces.

No. 195.

Sir,

I HAVE the honour to submit, for the information of the Honourable the Lieutenant-Governor, the accounts of the expenditure incurred in the cotton experiment sanctioned, last year, drawn out and prepared by Mr. Hamilton Bell. Revenue Depart-
ment.

2. His Honour is aware that, in consequence of the impossibility of procuring a sufficiency of good indigenous seed, particularly the sort called Bagcheenee, Mr. Bell bought at large cotton marts, about 150 miles to the west and south-west of Agra, several parcels of cotton wool.

3. Mr. Bell was desirous of sending to England several descriptions, that their qualities and values might be ascertained from experienced commercial men in England, and by the prices realised.

4. Each description has been kept separate and carefully marked, and there will be no difficulty in cultivating those most approved of.

5. The cotton was bought privately, without any extraneous aid, and in the regular course of trade, so the prices and results are in every case real.

6. When Mr. Bell became aware that his agents had purchased more cotton in the several marts than he wished, and more than was deemed necessary for the satisfactory solution of the experiment, he took over to his own private account several parcels as they arrived. These were never picked nor cleaned, but were sent in their first state for sale to Mirzapore.

7. The parcels thus taken were inferior, and consequently cheaper, the average price of Mr. Bell's being Rs. 7. 7. 9 a maund, while that of the Government cotton is Rs. 8. 0. 11 a maund; the details are given in the accounts now submitted. I may mention that Mr. Bell has told me that he gained about 4,000 rupees by the re-sale.

8. The first price has been much enhanced by the carriage to Agra, but more by the duties levied by the native chiefs through whose territories the cotton has been brought. Should his Honour desire it, Mr. Bell will submit copies of the invoices, which will exhibit the most minute details for each parcel of cotton. I have not struck an average of these expenses, but I think the duties not less than 20 per cent. on the first price.

9. After arrival at Agra, all the cotton was most carefully picked, beat, and cleaned, and then half-pressed with Mr. Bell's screws. There were no screws at Agra, but Mr. Bell, with his usual energy, bought three screws at Futtighur, brought them over here, purchased godowns, repaired them, and set up his screws, which were then used for the Government cotton.

10. We had a Government Atlas cotton press, but that has been proved inadequate for even half-pressing cotton. I myself saw, at Humeerpore, some of these presses break with

I.

Bengal and
North Western
Provinces.

about 250 lbs. of cotton to the bale, and consequently 200 lbs. of cotton only has latterly been pressed in each bale. It was very desirable to have the full usual weight of 300 lbs., so I gladly accepted Mr. Bell's offer of screwing the bales at two rupees each, he providing the gunny covering, rope, and labour.

11. This price may be deemed high, but Mr. Bell kept the greater part of the cotton in his godowns, round the screws, where also the cotton was chiefly cleaned, so that in fact two rupees a bale included godown rent; and even if the price be excessive it is an error on the right side in an experiment showing the price at which good Indian cotton can be supplied to the English manufacturer.

12. It would be superfluous to explain the trouble taken by Mr. Bell to pick and clean the cotton wool after its arrival from the interior to his Honour, who so frequently visited Mr. Bell's godowns while the process was going on, but it may be satisfactory to state that the expense latterly was reduced half, through the expertness gained in practice by the pickers.

13. The cotton purchased in the interior was, with a very trifling exception (17 maunds), all separated from its seed before it came to market, and the major part of that grown by Mr. Bell was also cleaned in the native way by their rude churkees. The saw gin was tried in several ways, and with different rates of speed, but in every case the cotton fibre appeared injured. The total quantity thus cleaned is 17 bales, and they are marked with a G.

14. Mr. Bell bowed 50 bales of cotton at an expense of 201 rupees. The bowing process undoubtedly frees the wool most effectually from leaves and other foreign matter; but doubts exist whether the process injures the wool or not, which this experiment may solve, as the bales are specially marked with a B. below the other letters.

15. The quantities of each description, with the price of each parcel on delivery at Agra, as also the minutiae of all other expenses up to arrival in Calcutta, are detailed in these accounts.

16. The cotton grown under Mr. Bell's personal superintendence was 619 maunds, and he bought at Tonk, 2,035 maunds; at Bagcheenee, 1,135 maunds; at Chatsoo (30 miles north of Tonk), 865 maunds; at Chowreea Newaee, in the same direction, 816 maunds; and at other neighbouring marts, 1,041 maunds, making a total of 6,561 maunds, at an expense of 52,875 rupees.

17. By cleaning this cotton was reduced to 5,932 maunds, and the refuse having been sold, the first price was reduced to 49,629 rupees; this amount should be still further reduced by 2,801 rupees, value of seed supplied to cultivators this year, and other amounts to be recovered, leaving the first net price 46,828 rupees. The expenses are 17,833 rupees, which may be divided under the following heads:

	Rs.	a.	p.
Sundry disbursements not included in the several invoices, but incurred before the arrival of the cotton at Agra	529	1	6
Picking, threshing and cleaning the cotton	4,202	9	6
Servants' wages for superintendence	892	7	
Bowing and experiments	201	6	
Miscellaneous items, including stowage of bales, weighing, &c.	1,460	13	3
Pressing bales at 2 rupees each	3,250		
Boat-hire to Calcutta, freight charges	4,218	2	
Insurance to Calcutta	3,279	11	
TOTAL	17,833	2	3

Total cost of cotton to Calcutta - - - Rs. 64,661. 10. 8.

18. The expenses are extremely heavy, particularly that of cleaning the cotton and the insurance charges, both of which may, I think, in future years be diminished.

19. I have drawn out an abstract from Mr. Bell's accounts, to show in one view the total expense to Calcutta of each description of cotton, detailing the several expenses, and calculating the cost per lb. in English money, and per bale in Indian money. The average price is $3\frac{3}{16}d.$ per lb., and I imagine $1d.$ more will fully cover the remaining charges, so that the cost in Liverpool will be under $4\frac{1}{4}d.$ per lb.

20. In conclusion, I have only to report that the cotton left this by water on different dates, between June 6th and July 19th, but I have not yet heard of its arrival in Calcutta.

Agra, 22 Sept. 1847.

I have, &c.
(signed) C. Allen, Civil Service.

(No. 196.)

STATEMENT of Cotton purchased for account of Government Cotton Experiment, under Sanction of the Honourable the Lieutenant-Governor North Western Provinces.

TOTAL, as per Particulars at Foot - - -				No.	M.	s.	c.	Rs.	a.	p.	Rs.	a.	p.
				-	-	10,050	33	4	-	-	79,003	14	-
Bag Cheenee, grown at Oomur Ghur, &c, as per invoice				-	-	619	6	4	6,773	14	3		
Ditto - imported as per invoice				1		411	8	12	3,188	2	-		
Ditto - ditto				2		99	23	4	772	13	-		
Ditto - ditto				3		337	20	0	2,693	1	6		
Ditto - ditto				4		112	27	0	895	10	-		
Ditto - ditto				5		72	2	8	584	15	-		
Ditto - ditto				6		92	1	4	745	11	9		
Tonk - ditto				1		131	0	0	933	10	9		
Ditto - ditto				2		324	21	0	2,349	11	-		
Julaha - ditto				3		124	39	4	956	12	6		
Tonk - ditto				4		659	38	12	4,803	8	3		
Julaha - ditto				5		135	28	8	1,053	-	6		
Chowreea Newaee - ditto				6		328	8	0	2,534	-	1		
Tonk - ditto				7		570	24	6	4,272	6	3		
Sheodaspoor - ditto				8		104	39	12	843	6	11		
Tonk - ditto				9		222	39	3	1,677	5	3		
Ditto - ditto				10		379	34	10	2,901	8	9		
Chowreea Newaee - ditto				11		227	1	7	1,767	15	-		
Bansko - ditto				12		96	2	12	772	2	6		
Tonk - ditto				13		204	8	2	1,572	2	-		
Bansko - ditto				14		90	29	0	740	4	6		
Chowreea Newaee - ditto				15		154	0	1	1,177	8	5		
Bansko - ditto				16		169	5	10	1,355	10	6		
Jeypoor - ditto				17		229	15	13	1,866	10	9		
Tonk - ditto				18		245	12	0	1,946	8	5		
Ditto - ditto				19		97	38	0	768	10	-		
Bansko - ditto				20		89	38	0	734	-	3		
Tonk - ditto				21		152	39	4	1,215	6	3		
Chowreea Newaee - ditto				22		101	2	0	790	13	3		
Tonk - ditto				23		112	17	13	907	-	3		
Ditto - ditto				24		437	25	9	3,940	14	-		
Chatsoo - ditto				25		98	23	15	789	5	-		
Ditto - ditto				1		104	7	4	780	8	-		
Ditto - ditto				2		228	28	8	1,738	8	-		
Ditto - ditto				3		324	2	4	2,504	4	3		
Ditto - ditto				4		109	24	1	899	6	-		
Tonk - ditto				1		237	21	4	1,898	-	3		
Madapoor - ditto				1		81	30	14	605	2	3		
Ghurkehra - ditto				2		111	17	12	805	14	9		
Madapoor - ditto				3		78	27	4	577	14	3		
Silowree - ditto				4		90	17	7	654	15	3		
Dholpoor Baree - ditto				5		99	14	2	723	2	6		
Boree - ditto				6		284	16	15	2,056	14	6		
Subsout - ditto				7		276	37	11	2,002	12	-		
Ditto - ditto				8		70	2	4	506	10	-		
Ditto - ditto				9		425	20	5	3,077	2	9		
Ditto - ditto				10		277	17	14	2,006	6	3		
Bag Cheenee kupas, 46, 25; cleaned, 30, 34				-	-	10	8	8	179	14	3		
Chowreea kupas - 23, 19				-	-	6	37	2	111	13	11		
						10,050	33	4			79,003	14	-
Transferred to Mr. H. Hamilton Bell				-	-	3,489	9	10	26,128	10	8		
Remains for account of Government				-	-	6,561	23	10	52,875	3	4		
						10,050	33	4	79,003	14	-		
DISPOSAL:													
Shipped to Calcutta, as per particulars, 1,625 bales, each						5,932	21	8					
300 lbs. net weight						686	36	10					
Sold refuse cotton													
Gain in Weight						6,629	18	2					
						57	34	8					
						6,561	23	10					

* Ninety-one maunds of wool from this invoice were erroneously designated Tonk cotton, and became a part of the 494 bales marked T.

<i>M. s. c.</i>						<i>Rs. a. p.</i>		
Cost of 6,561 23 10 as per above account						52,875	3	4
686	36	10	sold per net (refuse)	-	-	3,245	10	10
5,932	21	8	to Calcutta, first cost	-	-	49,629	8	5
6,629	18	2				<i>Rs.</i>	52,875	3 4

First cost of 1,625 bales of cotton sent to Calcutta for shipment to Liverpool						49,629	8	5
for sale on account of Government						17,833	2	3
Charges on same, including boat-hire and insurance, &c.						<i>Co.'s Rs.</i>	67,462	10 8

From this should be deducted,—								
Balance due on Oomur Ghur, &c. outlay passed as cash allowance or suttahs						1,301	-	-
of this year, and for which credit is given to Government as cash						1,100	-	-
Seed from last year's kupas sold to ryots for this year's cultivation						400	-	-
Sundries, as old bags, tact, and remaining on hand, estimated at						<i>Rs.</i>	2,801	- -

The drawback on export will scarcely pay the Calcutta charges, if they do more than additionally pass the bales to which they have been restricted, unless fresh package is indispensable.

(E. E.)

(signed) *H. Hamilton Bell,*
Agent Cotton Expt. of Govt., N. W. P.

Oomur Ghur, 7 September 1847.

SPECIFIC Appropriation of Invoices per Contra.

For Shipment to England for Account of Government.						Transferred to Mr. H. H. Bell.					
		<i>M. s. c.</i>	<i>Rs. a. p.</i>				<i>M. s. c.</i>	<i>Rs. a. p.</i>			
Bag Cheence, Oomur Ghur, &c.	-	619 6 4	6,773 14 3			Tonk, inv.	4	659 38 12	4,803 9 3		
Ditto imported invoice	-	411 8 12	3,183 2 -			" part of, inv.	7	350 5 8	2,626 - -		
	2	99 23 4	772 13 -			" part of "	10	183 37 14	1,405 11 -		
	3	337 20 0	2,693 1 6			Baskho	13	204 8 2	1,572 2 -		
	4	112 27 0	895 10 -			Tonk	16	169 5 10	1,355 10 6		
	5	72 2 8	584 15 0			Jeypore	17	229 15 13	1,866 10 9		
	6	92 1 4	745 11 9			Tonk	18	245 12 0	1,946 8 5		
Tonk	1	131 0 0	933 10 9			"	19	97 38 0	768 10 -		
"	2	324 21 0	2,349 11 -			Baskho	20	89 38 0	734 - 3		
Julaha	3	124 39 4	956 12 6			Boree	6	284 16 15	2,056 14 6		
"	5	135 28 8	1,053 - 6			Subsout	7	276 37 11	2,002 12 -		
Chowreea Newaee	6	328 8 0	2,534 - 1			"	8	70 2 4	506 10 -		
Tonk, part of	7	220 18 11	1,646 6 3			"	9	425 20 5	3,077 2 9		
Sheodaspoor	8	104 39 12	843 6 11			" part of "	10	202 12 12	1,406 6 3		
Tonk	9	222 39 3	1,677 5 3								
" part of	10	175 36 12	1,495 13 9								
Chowreea Newaee	11	227 1 7	1,767 15 -								
Bansko	12	96 2 12	772 2 6								
"	14	90 29 0	740 4 6								
Chowreea Newaee	15	154 0 1	1,177 8 5								
Tonk	21	152 39 4	1,215 6 3								
Chowreea Newaee	22	101 2 0	790 13 3								
Tonk	23	112 17 13	907 - 3								
"	24	437 25 9	3,490 14 -								
Charsoo	25	98 23 15	789 5 -								
"	1	104 7 4	780 8 -								
"	2	228 28 8	1,738 8 -								
"	3	324 2 4	2,504 4 3								
"	4	109 24 1	899 6 -								
Tonk	1	237 21 4	1,898 - 3								
Madhoopoore	1	81 30 14	605 2 3								
Ghur Kehra	2	111 17 12	805 14 9								
Madhoopoore	3	78 27 4	577 14 3								
Silowree	4	90 17 7	654 15 3								
Dholpoore Baree	5	99 14 2	723 2 6								
Subsout, part of	10	75 5 2	600 - -								
Bagcheence from kupas	-	10 8 8	179 14 3								
Chowreea Newaee from kupas	-	6 37 2	111 13 11								
		6,561 23 10	52,875 3 4					3,489 9 10	26,128 10 8		

COTTON Grown and Purchased; and Disposal.

Description.	Quantity.	Transferred to H. H. Bell.	Retained for Government.	Bowed Bales.	Cotton.	Bales Ginned.	Bales Bowed.	Ginned Cotton.	Bowed Cotton.	Cotton Refuse.	TOTAL.
	M. s. c.	M. s. c.	M. s. c.	No.	M. s. c.	No.	No.	M. s. c.	M. s. c.	M. s. c.	M. s. c.
Boree - -	284 16 15	284 16 15	- - -	-	- - -	-	-	- - -	- - -	- - -	284 16 15
Oomur Ghur -	619 6 4	- - -	619 6 4	148	450 12 8	14	-	51 7 4	- - -	27 16 8	619 6 4
Bag Cheenee -	1,135 11 4	- - -	1,135 11 4	272	993 0 4	3	4	10 32 12	14 17 0	117 1 4	1,135 11 4
Tonk - - -	3,868 39 2	1,741 20 4	2,127 18 14	494	1,803 15 8	-	26	- - -	94 36 8	229 6 14	3,868 39 2
Chattoo - -	865 6 1	- - -	865 6 1	215	784 36 8	-	-	- - -	- - -	80 9 9	865 6 1
Madhoopoor -	160 18 2	- - -	160 18 2	40	146 1 8	-	-	- - -	- - -	14 16 10	160 18 2
Ghurkehra -	111 17 12	- - -	111 17 12	28	102 9 0	-	-	- - -	- - -	9 8 12	111 17 12
Silowree - -	90 17 7	- - -	90 17 7	21	76 26 12	-	-	- - -	- - -	13 30 11	90 17 7
Dholpoor Baree -	99 14 2	- - -	99 14 2	25	91 12 0	-	-	- - -	- - -	8 2 2	99 14 2
Subsout - -	1,049 38 2	974 38 0	75 5 2	-	- - -	-	20	- - -	73 1 0	2 4 2	1,049 38 2
Julaha - - -	260 27 12	- - -	260 27 12	62	226 14 0	-	-	- - -	- - -	34 13 12	260 27 12
Chowreea Newace	725 9 6	- - -	725 9 6	183	668 4 0	-	-	- - -	- - -	57 5 6	725 9 6
Sabazpoora -	104 39 12	- - -	104 39 12	25	91 12 0	-	-	- - -	- - -	13 27 12	104 39 12
Baskho - - -	445 25 6	259 3 10	186 31 12	45	164 13 0	-	-	- - -	- - -	22 18 12	445 35 6
Jeypore - - -	229 15 13	229 15 13	- - -	-	- - -	-	-	- - -	- - -	- - -	229 15 3
	10,050 33 4	3,489 9 10	6,561 23 10	1,558	5,687 37 0	17	50	62 0 0	182 24 8	629 2 2	10,050 33 4

Boats.	Manjee.	Churrundar.	Date of Despatch.	Mark.	Bales.	Cotton.		No. Policy.	Amount Insured with Union Insurance Company.
							M. s. c.		Rs. a. p.
1	Gunga -	Sitaram -	6 June -	B C	145	Oomur Ghur -	540 12 8	67	6,380 - -
1	Beharee -	Bhoop Sing -	" -	T	235	Tonk - - -	857 34 4	68	10,130 - -
1	Baroodin -	Kisson Sing -	" -	C C B	272	Bag Cheenee -	993 0 4	69	11,730 - -
1	Mura -	Rutty Ram -	" -	J	62	Julaha - - -	225 14 0	71	8,190 - -
"	" -	" -	" -	M	40	Madapoor - -	146 1 8		
"	" -	" -	" -	D B	25	Dholpoor - -	91 12 0		
"	" -	" -	" -	G	26	Ghurkehra - -	94 36 12		
"	" -	" -	" -	S X	21	Silowree - -	76 26 12		
"	" -	" -	" -	B C G	16	Bag Cheenee, ginned	58 16 8	74	9,270 - -
1	Soobna -	Ahmud Ally -	7 July -	C S	215	Charsoo - - -	784 36 8		
1	Singun -	Nisoor Ally -	" -	C	183	Chowreea - - -	668 4 0	75	8,970 - -
"	" -	" -	" -	S	25	Shabazpoor - -	91 12 0		
1	Blickka -	Koondun Sing -	19 July -	T	186	Tonk - - -	679 2 0	77	8,190 - -
"	" -	" -	" -	B C B	4	Bag Cheenee, bowed	14 24 8		
1	Buttola -	Lal Khan -	" -	T	73	Tonk - - -	266 19 0	79	7,200 - -
"	" -	" -	" -	B K	45	Backoowa - -	164 13 0		
"	" -	" -	" -	G	2	Ghurkehra - -	7 12 4		
"	" -	" -	" -	B C G	1	Bag Cheenee, ginned	3 26 0		
"	" -	" -	" -	D S B	20	Subsout, bowed	73 1 0		
"	" -	" -	" -	T B	26	Tonk, bowed	94 36 12	Co.'s Rs.	70,060 - -
8	- - -	- - -	- - -	- -	1,625	- - -	5,932 21 8		

(True copy.)

(signed) C. Allen, Civil Service.

(No. 197.)

DETAIL of Charges incurred in Cleaning, Packing, and despatching to Calcutta 1,625 Bales of Cotton on account Government Cotton Experiment, including Boat-hire, Insurance, &c.

PACKING AND THRESHING.										TOTAL.									
	M.	s.	c.		M.	s.	c.			Rs.	a.	p.	Rs.	a.	p.				
Julaha - -	227	36	4	Pickers	4,917	298	12	9	Threshers	228	20	5	6	319	2	3			
Oomur Ghur - -	542	1	12		447 $\frac{1}{2}$	274	7	6		323	28	9	9	303	1	3			
Bag Cheenee - -	989	35	14		13,206	794	6	6		1,203	109	9	0	903	15	6			
Charsoo - -	775	26	12		7,452	471	0	3		854	78	11	3	549	11	6			
Madhoopoor - -	146	14	0		1,435	90	8	3		166	15	9	3	106	1	6			
Dholpoor Baree	90	37	8		878	53	10	0		123	11	7	9	65	1	9			
Tonk - -	1,795	31	8		17,583	1,018	5	0		2,130	186	11	0	1,205	-	-			
Sheodaspoor - -	93	17	8		1,279	50	1	9		140	12	12	6	62	14	3			
Ghurkehra - -	100	16	12		1,110	70	5	0		128	12	3	6	82	9	3			
Silowree - -	78	4	0		866	52	7	6		93	8	8	0	60	15	6			
Chowrea Newaee	660	28	8	6,135	372	9	0	707	64	10	6	437	3	6					
Baskho - -	163	25	8	1,582	91	9	0	183	15	4	3	106	13	3					
	5,664	35	14	-	60,914 $\frac{1}{2}$	3,638	3	3	-	6,281	564	6	3	-	-	-	4,202	9	6
Bowling cotton, 178 - 6 - 8 sundry cotton, at 1/ per maund										-	-	-	-	177	3	-			
Allowed chowdry wages for 18 days, at /4										-	-	-	-	4	8	-			
																	181	11	-
23 19 0 kupas experiment, by seeding kupas, 199 $\frac{1}{2}$ metres										-	-	-	-	12	11	-			
6 37 2 clean cotton seeded, at 1/ per maund										-	-	-	-	7	-	-			
																	19	11	-
Puttadaree -	6,081	0	0	loose bales, 1,601 $\frac{1}{2}$ borees, at $\frac{1}{3}$ per boree						-	-	-	125	1	6				
	6,175	0	0	ditto filling at /10 per 100 bales						-	-	-	38	9	-				
	5,108	0	0	ditto transferred to different godowns, at 2/ per %						-	-	-	102	5	9				
	32	0	0	ditto filling with refuse cotton from different places						-	-	-	1	9	6				
	2,278	0	0	ditto removal of to screw house, at 3 pice per bale						-	-	-	35	10	6				
	3,295	0	0	ditto 824 $\frac{1}{2}$ borees on weighing, at /1 per boree						-	-	-	51	7	9				
	3,650	0	0	ditto loads of chattees, &c. at /1 per 100						-	-	-	2	4	6				
																	357	-	6
Sundry disbursements in purchase of Bag Cheenee cotton, not in invoice:																			
Gomasta, and other servants employed										-	-	-	-	244	12	3			
Batta on rupees exchanged for Company's										-	-	-	-	14	3	-			
Examining fee to Custom-house officers										-	-	-	-	2	1	-			
Sepoys for conveying cash to Bag Cheenee										-	-	-	-	4	2	-			
																	265	2	3
Disbursements for Charsoo cotton not in invoice:																			
Gomasta, and servants employed										-	-	-	-	139	2	9			
Batta on rupees										-	-	-	-	32	5	9			
Customs chowkee fee										-	-	-	-	6	-	-			
																	171	14	6
Sundry charges on Agra purchases										-	-	-	-	-	-	-			
Ditto - - ditto Tonk ditto										-	-	-	-	-	-	-	51	1	-
																	40	15	9
Godown rent paid to Binee Ram Pudo Mull 1 godn. at 4/ per maund, $\frac{2}{1}$ m. d.										-	-	-	-	8	2	-			
Ditto - - Bence Pershand Radakissen, at 3/ " 3/22										-	-	-	-	45	-	-			
Ditto - - Kunhy Loll - - at 4/ " 4/1										-	-	-	-	64	2	-			
																	117	4	-
Carried forward										-	-	-	-	-	-	-			
																	5,407	5	6

		Brought forward - - - Rs.	Rs. a. p.	Rs. a. p.
				5,407 5 6
Wages to Persons employed at Kutchery Ghaut:				
Mackenzie	- - - - -		5 - -	
Bull, from 1 February to end of June, at 60/ per m.	- - - - -		300 - -	
Salek Ram, 15 " to 8 April, at 5/	- - - - -		8 12 -	
Shunkur Loll, Persian writer, 1 March to end of July, at 10/	- - - - -		50 - -	
Dumana Loll, mutsuddee - 23 ditto - ditto - at 7/	- - - - -		30 - 6	
Bisson Sing, - ditto - 1 April - ditto - at 4/	- - - - -		16 - -	
Bux Oolla Khan, jemadar - 1 March - ditto - at 5/	- - - - -		25 - -	
Shaik Suhoo - sepoy - 13 January to 12 March, at 3/8	- - - - -		7 - -	
Chait Ram - - - - - 15 March to end of July	- - - - -		15 12 -	
Beerbul - - - - - 1 " to 10 June	- - - - -		11 10 8	
Ahmed Ally - - - - - 14 " to 7 July	- - - - -		13 4 9	
Oolad Ally - - - - - 14 " to end "	- - - - -		16 - 6	
Bowanny - - - - - 14 " " "	- - - - -		16 - 6	
Wuzeer Ooddeen " - - - 15 " to 10 June	- - - - -		10 1 2	
Mehtale Khan - - - - - 5 April to " "	- - - - -		7 11 2	
Soondur Loll - - - - - 5 " to end July	- - - - -		13 8 6	
Beharree, weighman, " - - 5 March to " "	- - - - -		34 1 -	
Theako, mato - - - - - 1 " to 20 July	- - - - -		23 3 6	
Budloo, ditto - - - - - 1 April to " "	- - - - -		18 3 6	
Today, ditto (part of time at 4/)	20 February to end of May		14 8 -	
Sessa, ditto - - - - - 1 April to 9 July - " "	- - - - -		16 8 -	
Assa, ditto - - - - - 1 " to 4 June, at 5/; then to 5 July, at 3/	- - - - -		13 12 9	
Kulloo, bhistie - - - - - 25 " to 22 July, at 4/	- - - - -		11 9 6	
Muddun " - - - - - 25 " to 5 " "	- - - - -		9 7 -	
Punchum Sing, chuprassee - - - - -	- - - - -		7 2 -	
				694 5 -
Servants employed at Gin House Godown:				
Ram Sing, chuprassee, 1 February to 30 April, at 5/	- - - - -		15 - -	
Newul Khan " 1 " " "	- - - - -		15 - -	
Lall Khan " 1 " " "	- - - - -		15 - -	
Mungul Sing " 1 " " "	- - - - -		15 - -	
Chubbeela, head mate, 1 " to 7 May	- - - - -		16 3 6	
Bhoora - - - - - 1 " " "	- - - - -		12 14 -	
Dhoukla - - - - - 1 " " "	- - - - -		12 14 -	
Buddoola - - - - - 1 " " "	- - - - -		12 14 -	
Mukna - - - - - 1 " " "	- - - - -		12 14 -	
Boora - - - - - 1 " " "	- - - - -		12 14 -	
Mudeya - - - - - 1 " " "	- - - - -		12 14 -	
Mukkoo - - - - - 1 " " "	- - - - -		12 14 -	
Oopada - - - - - 1 " " "	- - - - -		11 5 3	
Bhowanny Sing - 1 " " "	- - - - -		11 5 3	
Weighman - - - - - 26 " " "	- - - - -		9 2 -	
				198 2 -
Sundries:				
Tikadars employed in procuring Samples of Cotton from Jeypore, Sopnur				
Bandah, &c. &c.	- - - - -		25 13 9	
Stationary and ink, &c.	- - - - -		19 1 -	
Postage of letters	- - - - -		3 14 6	
				48 13 3
Miscellaneous Charges at Kutcherry Ghaut:				
315 coolies, for making and repairing jaffries	- - - - -		34 10 -	
126 bullies, for ditto	- - - - -		18 4 -	
2,120 bamboos	- - - - -		50 5 6	
Md. 4. 10 14. of twine used in making jaffries	- - - - -		15 12 9	
1,159 coolies, gathering up cotton, filling and sewing bags, and packing refuse	- - - - -		110 5 6	
Seers 2. 13. thread for gunny bags	- - - - -		1 11 6	
Seers 4. 12. twine for - ditto	- - - - -		- 6 9	
Needles for - - - - - ditto	- - - - -		- 6 9	
141 that chuttees	- - - - -		22 6 6	
232 pieces gunny for floorcloth for pickers	- - - - -		77 2 -	
109 coolies, sewing the same	- - - - -		12 1 3	
Md. 2. 20. 12. of twine	- - - - -		10 1 6	
115 boys, for sweeping and cleaning compound for pickers	- - - - -		8 14 6	
403 bhistees, for water for pickers	- - - - -		45 14 -	
23 tailors, for sewing small bags	- - - - -		3 9 9	
5 currees, for scales	- - - - -		2 15 -	
Carried forward - - - Rs.			414 15 3	6,348 9 9

Brought forward										Rs.	a.	p.	Rs.	a.	p.
										414	15	3	6,348	9	9
Miscellaneous Charges at Kutcherry Ghaut— <i>continued</i> .															
13½ pair of sirkees, for tatees	-	-	-	-	-	-	-	-	-	1	5	9			
82 gurrahs, for water	-	-	-	-	-	-	-	-	-	1	6	-			
74 mats to place below the cotton	-	-	-	-	-	-	-	-	-	4	4	-			
Brooms and jhow plants for ditto	-	-	-	-	-	-	-	-	-	-	7	-			
Md. 59. 12. 4. parched grain allowed to pickers	-	-	-	-	-	-	-	-	-	94	10	6			
53 tallow candles	-	-	-	-	-	-	-	-	-	1	3	-			
Seer 1. 11. thread, for small bags	-	-	-	-	-	-	-	-	-	1	2	-			
Coolie, for carrying pice to Kutcherry Ghaut	-	-	-	-	-	-	-	-	-	-	-	6			
Given to the mates, for chubana	-	-	-	-	-	-	-	-	-	4	12	3			
Mater	-	-	-	-	-	-	-	-	-	-	6	6			
Travelling allowance to writer from Oomur Ghur	-	-	-	-	-	-	-	-	-	1	-	-			
Small bags to hold pice, &c.	-	-	-	-	-	-	-	-	-	-	8	-			
													525	11	-
Miscellaneous Charges at Cotton Gin Godown:—															
400 that chuttees, for bags and floorcloth	-	-	-	-	-	-	-	-	-	55	-	-			
131 slips of gunny, ditto	-	-	-	-	-	-	-	-	-	48	10	6			
Md. 1. 39. 12. twine	-	-	-	-	-	-	-	-	-	9	3	9			
2,500 bamboos for ditto, &c.	-	-	-	-	-	-	-	-	-	50	-	-			
9 male bamboos for beaters	-	-	-	-	-	-	-	-	-	-	3	6			
2 curries for chopper	-	-	-	-	-	-	-	-	-	1	3	-			
Md. 3. 22. ban moonj, for ditto	-	-	-	-	-	-	-	-	-	7	1	3			
Thicka gurramees to thatch, &c.	-	-	-	-	-	-	-	-	-	8	12	-			
9 bildars	-	-	-	-	-	-	-	-	-	-	15	9			
7 boys	-	-	-	-	-	-	-	-	-	-	7	-			
Making jaffries	-	-	-	-	-	-	-	-	-	2	2	-			
Thread for sewing bags	-	-	-	-	-	-	-	-	-	-	5	9			
10,000 bundles of straw for chapper	-	-	-	-	-	-	-	-	-	15	-	-			
16 brick pillars, 320 feet	-	-	-	-	-	-	-	-	-	2	13	-			
4 baskets	-	-	-	-	-	-	-	-	-	-	13	-			
													211	-	6
Packing and sewing 1,625 bales of cotton, including gunny and ropes, &c., at 2 per bale										3,250	-	-			
Boat hire to Calcutta										Rs.	a.	p.			
										4,011	9	9			
Pulladaree in loading boats										78	2	9			
Oil allowed for lights										-	5	6			
Wages of 8 churrundars in charge										-	-	-			
Advance for way-charges, at 2/										-	-	-			
										Rs. 112	-	-			
										16	-	-			
										128	-	-			
													4,218	2	-
Insurance with Union Insurance Company, under Policies:															
Nos. 68 to 70, 74 to 75, and 77 and 79, including insurance, peon hire, and policy fees													3,279	11	-
													10,747	13	-
										Rs.			17,833	2	3

(E. E.)

(signed) *H. Hamilton Bell*,
Agent Government Cotton Experiment, N. W. P.

Oomur Ghur, 7 September 1847.

(True copy.)

(signed) *C. Allen*,
Civil Service.

(No. 198.)

ABSTRACT of the Cost to Calcutta of 1,625 Bales of Cotton, each weighing 300 lbs., despatched in June and July 1847.

DESCRIPTION OF COTTON.	Marks on the Bales.	Number of Bales.	First Price taken from the Account.	Expenses apportionable to each Description; viz., Screwing, Cleaning and Bowing.	Proportion of General Expense; viz., Insurance, Servants', Boat-hire, Wages and Miscellaneous.	Deduct Value of Refuse Cotton, and Special Items in Home Grown.	Proportion of Deductions for Bags, valued at 400 Rupees, or $\frac{2}{3}$ Rupees per Bale.	Total Net Price to Calcutta of each Description.	Price per Bale of each Description.	Price per lb. in Pence, calculating 300 lbs. to each Bale, and the Rupee at 2 s.
			<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>dec. d.</i>
Bag Cheenee, home grown -	BC & BCG	162	6,778 14 3	627 1 3	967 2 -	2,542 6 -	39 13 10	5,785 13 8	35 11 5	2·857 or 2 $\frac{7}{8}$
Ditto - - imported	{ BC & BC B G }	275	8,930 5 2	1,714 13 8	1,041 11 9	595 3 -	67 10 10	11,624 - 9	42 4 3	3·381 or 3 $\frac{3}{8}$
Ditto - - bowed	{ BC B }	4	129 14 4	39 2 1	23 14 -	8 10 5	- 15 9	183 4 3	45 13 1	3·665 or 3 $\frac{5}{8}$
Tonk - - -	T	494	15,501 9 11	2,171 11 9	2,949 2 6	1,123 - 4	121 9 -	19,377 14 10	39 3 7	3·188 or 3 $\frac{1}{8}$
Ditto, bowed	{ T B }	26	815 13 10	208 12 -	155 3 6	59 2 -	6 6 4	1,114 5 -	42 13 9	3·424 or 3 $\frac{3}{8}$
Chatsoo - - -	CS	215	6,711 15 3	1,158 10 -	1,283 8 6	414 - -	52 14 6	8,687 3 3	40 6 6	3·232 or 3 $\frac{1}{4}$
Choweeea Newaee	C	183	5,678 14 8	803 3 6	1,092 7 10	294 12 4	45 - 6	7,234 13 2	39 8 6	3·163 or 3 $\frac{1}{8}$
Julaha - - -	J	62	2,009 13 -	443 2 3	370 2 2	177 3 2	15 4 2	2,630 10 1	42 6 8	3·394 or 3 $\frac{3}{8}$
Madhoopoor - - -	M	40	1,183 - 6	186 1 6	238 12 9	74 12 5	9 13 6	1,523 4 10	38 1 4	3·047 or 3·
Dholepore - - -	DB	25	723 2 6	115 1 9	149 4 -	41 8 7	6 2 5	939 13 3	37 9 6	3·007 or 3·
Ghur Kehra - - -	G	28	805 14 9	138 9 3	167 2 6	47 9 -	6 15 11	1,057 1 7	37 12 -	3·020 or 3·
Silowree - - -	S	21	654 15 3	102 15 6	125 6 -	71 - 8	5 2 8	807 1 5	38 6 11	3·075 or 3 $\frac{1}{8}$
Sheodaspoor - - -	S	25	843 6 11	112 14 3	149 4 1	70 10 6	6 2 6	1,028 12 3	41 2 5	3·292 or 3 $\frac{1}{4}$
Baakho - - -	B & K	45	1,512 7 -	196 13 3	268 10 4	115 14 10	11 1 3	1,850 14 6	42 2 1	3·290 or 3 $\frac{1}{4}$
Subsout, bowed - - -	{ LS B }	20	600 - -	113 - -	119 6 4	10 13 8	4 14 10	816 9 10	40 13 3	3·266 or 3 $\frac{1}{4}$
TOTAL - - -	- - -	1,625	52,875 3 4	8,132 - -	9,701 2 3	5,646 10 11	400 - -	64,661 10 8	39 12 8	3·183 or 3 $\frac{3}{8}$

I.

Bengal and
North Western
Provinces.

The following Letters are written :

No. 199.

(No. 622 A. of 1847.)

From *John Thornton*, Esq., Secretary to the Government, North Western Provinces, Agra,
to *H. M. Elliot*, Esq., Secretary to the Government of India with the Governor-
General, Simla.

Sir,

Revenue Depart-
ment.

Mr. Allen's letter,
dated 22 Sept.,
with enclosures.

KNOWING the anxiety which the Honourable the Court of Directors feel regarding the cultivation of cotton in this country, the Lieutenant-governor desires me to request that the accompanying accounts connected with Mr. Bell's experimental investment may, with the permission of the Right honourable the Governor-general, be forwarded by the overland mail now under despatch.

2. It will be observed that the cotton will be received in Calcutta at an expense on the average of $3\frac{3}{16}$ d. the lb.; that the cost of the home-grown cotton will be only $2\frac{7}{8}$ d. per lb. As the further charges will probably be 1 d. per lb. additional, it may be expected that this cotton will be landed in Liverpool at $4\frac{3}{16}$ d. and $3\frac{7}{8}$ d. per lb. The detailed accounts will satisfy the Honourable Court that the charges are fairly stated, and are such as would be incurred by merchants in the usual course of trade.

3. It may be added, that the shipments of the coming season will consist entirely of home-grown cotton, that the crop is very promising, and that there is good reason to believe that the charges will be considerably reduced.

4. With reference to the representations contained in the Lieutenant-governor's minute of 10th August last, regarding the transit duties in Rajpootana, it will be observed from para. 8, of Mr. Allen's letter, that these duties amount to 20 per cent. on the first price of all cotton imported across the North Western frontier. Further details regarding these duties will be required, and will be hereafter submitted.

I have, &c.

(signed) *J. Thornton*,

Secretary to the Govt. N. W. P.

Head Quarters, 30 September 1847.

Duplicate forwarded to the Presidency.

No. 200.

(No. 623 A. of 1847.)

From *John Thornton*, Esq., Secretary to the Government of the North Western Provinces,
Agra, to *Charles Allen*, Esq., Civil Service, Agra.

Sir,

Revenue Depart-
ment.

I AM directed to acknowledge the receipt of your letter dated the 22d instant, and to inform you that copies of the accounts which you have submitted will be forwarded to the Honourable the Court of Directors by the overland mail now under despatch.

2. With reference to para. 8 of your letter, regarding the transit duties on cotton in foreign states, I am desired to inform you that it is of great importance to procure the most precise information possible on this subject. You are, therefore, requested to examine it farther, and to report what sums were levied, at what places, and by whom. The Lieutenant-governor would be glad to receive from you such observations and suggestions regarding these transit duties as the inquiry may enable you to offer.

I have, &c.

(signed) *J. Thornton*,

Secretary to the Govt. N. W. P.

Head Quarters, 30 September 1847.

(True extracts.)

(signed) *W. Blackburn*,

Reporter of Proceedings.

Home Department, Revenue.—18 December (No. 20) 1847.

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

WE have the honour to acknowledge the receipt of your Honourable Court's despatch, No. 13, dated 20th October 1847, communicating observations on the arrangements entered into by the Lieutenant-governor of the North Western Provinces with Mr. Hamilton Bell, for the experimental cultivation of cotton in the neighbourhood of Agra.

2. We

2. We have transmitted a copy of this despatch to the Lieutenant-governor, drawing his Honour's particular attention to paras. 5 and 6 of the despatch.

3. One of the most interesting experiments yet undertaken for rendering Indian cotton more fit for the spinning manufacturers of Manchester by an improvement of the cleaning machine of the country, is now in the course of preparation at the Presidency, at the instance of the Lieutenant-governor*, and we have very little doubt that when more attention is given to the culture and clean picking of the cotton in the fields, a sensible benefit will be secured in this staple to both Great Britain and India.

Fort William, 18 December 1847.

We have, &c.
(signed) *Hardinge.*
T. H. Maddock.
&c. &c.

Home Department. Revenue. 31 December (No. 22) 1847.

To the Honourable the Court of Directors of the East India Company

Honourable Sirs,

IN continuation of our despatch, No. 20, dated the 18th instant, we have the honour to transmit the accompanying communication which we have received from the Lieutenant-governor of the North Western Provinces regarding the prosecution of the experiment for the cultivation of cotton in those provinces under the superintendence of Mr. Hamilton Bell, and to request your Honourable Court will be pleased to communicate your orders on this representation before the time arrives (viz., May 1848) for making arrangements for the produce of the year 1848.

Fort William, 31 December 1847.

We have, &c.
(signed) *Hardinge.*
T. H. Maddock.
&c. &c.

(No. 678 A. of 1847.)

From *J. Thornton*, Esq., Secretary to Government, North Western Provinces, to *G. A. Bushby*, Esq., Secretary to Government of India, Home Department, Fort William.

Sir,

WITH reference to the correspondence which has already passed regarding the experimental cultivation of cotton in the North Western Provinces under the superintendence of Mr. H. Hamilton Bell, I am directed to request that you will submit for the consideration of the Right honourable the Governor-general in Council the following observations and proposals. Revenue Department.

2. It will be in the recollection of the Governor-general, that the first steps in the present experiment, which were taken in 1846, met with the approbation of the Honourable the Court of Directors.

3. The home-grown crop was small, and in order to complete the consignment to the extent necessary for a fair experiment, several of the best sorts of cotton from Rajpootanah and the neighbouring countries were purchased in the market; all these were carefully cleaned, and packed in bales at Agra. The produce is now on its way home, but sufficient time has not elapsed to hear of the out-turn. Considerable difference of opinion exists regarding the quality of the cotton, but all parties who have seen it fix upon it a price which would be highly remunerative. It is impossible in the present state of commercial affairs to foresee how prices will range when the consignment comes into the market, but there is good reason to hope that the Government will suffer no loss, and that the gentleman who has so diligently and zealously superintended the experiment will obtain some compensation, more or less, for his trouble.

4. At the commencement of the season of 1847, the Right Honourable the Governor-general, in personal communication with the Lieutenant-governor, expressed his approbation of what had been done, and recommended the further prosecution of the experiment in a similar method.

5. This has been done, but with home-grown cotton only. Mr. Bell's influence in the neighbourhood of his estates enabled him so largely to extend the cultivation on his own terms,

* Mr. Mather's efforts to improve the native churka.

I.

Bengal and
North Western
Provinces.

terms, that the whole consignment will consist of cotton grown in the Doab from different kinds of seed cultivated according to the course which Mr. Bell has prescribed.

6. The season has been good. About six weeks ago, the Lieutenant-governor in the course of his tour passed through the country where the crop was growing, saw much of the cultivation, and examined many specimens of the cotton which was then in the course of being gathered. The experiment is attracting the attention of many native gentlemen and landholders, who are desirous to possess themselves of the better varieties of seed, and to follow the example set them by Mr. Bell.

7. There is every prospect that the out-turn this year will be more favourable than that of last year, but the produce cannot, with every exertion, come into the British market before the end of 1848, and some time, therefore, must elapse before the reasonable expectations on this head can be put to the proof.

8. In May next it will be necessary to provide for the produce of the approaching season, and it is with the view of ascertaining the wishes of the Supreme Government and of the Home Government on this point that I am desired now to address you.

9. It is evident from the preceding detail that the experiment of 1846 was incomplete. Measures were commenced at too late a period to admit of the cultivation of more than one kind of cotton (the Bagcheenee). The consignment was made up by the purchase of foreign cotton. Fully two years are necessary to enable a person to judge of the result of the experiment. The Lieutenant-governor is therefore desirous to have authority to carry on his experiment for another year. If success is not then apparent, its further prosecution will be useless.

10. Simultaneously with the exertion to improve the growth of cotton, great efforts have been made, and are now making, to improve and cheapen the several processes of cleaning, packing, and dispatching the cotton. The American saw-gin, it is well known, has hitherto failed in this part of the country, but there is good prospect that improved machinery on the principle of the common native churkah will both cheapen and improve the process of cleaning. It may be made both to separate the wool from the seed at less cost than by the hand churkah, and also, at the same time, to cleanse the wool from the dust and impurities with which it is often united, and which unfit it for the purposes of the manufacturer. Mr. Mather, the mechanist in the employ of Government, is now at Fort Gloucester constructing his machines there, with all the advantages which the establishment affords him. Good iron screw presses have also been established at Agra, and the greatest attention is paid to the compression of the cotton-wool into properly sized bales, a process which has hitherto been ordinarily performed only in Calcutta.

11. As it is not impossible that some misapprehension may exist as to the terms on which this experiment is now conducted, I am desired to offer a few remarks on that part of the subject.

12. It should be borne in mind, that in the middle of 1846 the Lieutenant-governor found himself with a considerable stock of machinery and materials on hand for the preparation of cotton, and furnished with no instructions as to the course he should pursue. The American planters had given up the experiment in despair, and had left this part of the country. The attempt to clean cotton which had been bought in the market signally failed. It remained only to give up the experiment altogether, and to allow the past experience to be lost, as well as the machinery to be idle, or else to devise some new method of conducting the process. The repeated and strongly expressed wish of the Honourable Court of Directors, as well as the then state of the home market, were strong motives for continuing the experiment on any plan which offered reasonable promise of success.

13. In this conjuncture Mr. H. Hamilton Bell came forward; he is an English gentleman of great mercantile experience and resources, of extensive local influence amongst the agricultural classes, and of the highest character for intelligence and public spirit. He had been an observant spectator of all that had passed in the former experiments. He evidently brought to the work qualifications which could not have been found united in any other person. At that time the cotton trade of Bengal with England had no existence; no one would embark capital in so unpromising a speculation; no further effort would be made except by the Government, and there was no competitor who could be injured by the Government support afforded to Mr. Bell. The proposed plan was simple, and in perfect conformity with the established practice of the country in the cultivation of indigo. It involved but an inconsiderable ultimate expenditure, and was exposed to very small risk. The consequences of failure could not be ruinous—the benefit of success was great.

14. Mr. Bell stipulated for no remuneration. He placed his knowledge, his resources, his influence unreservedly at the disposal of the Government. He only asked for the support of Government till he could prove the truth of his anticipations, and when that was accomplished, he hoped to find himself in a condition to prosecute the enterprise himself. The contingent remuneration which has been offered him, was but a fair reward for the exertions which he made, and was consistent with the character of the Government, which renounces for itself all prospect of gain from commercial speculation.

15. The great distinction between an experiment of this nature, when conducted by the Government and by an individual, is this: the Government acts for the public; it is bound to

to lay before the public all the results; to record faithfully its failures as well as its success; to afford full information to all those who may wish to follow its example; to warn against experienced difficulties, and to indicate expected modes of improvement. The individual, acting for himself, naturally endeavours to keep everything as much as possible within his own breast; he will show results, but to those only who are likely to further his views; he will conceal errors; he will gloss over failures, without any dishonest intention to deceive; he will justly and naturally feel himself warranted in conducting his operations so as to exclude others from the benefit of his labours. Mr. Bell is perfectly sensible of this distinction, and is acting in good faith with reference to it; his accounts are fully and accurately kept; he reports to the Government, from time to time, all that is desirable should be known; and he is now engaged in compiling for the Agricultural and Horticultural Society a detail of his operations, as far as they have proceeded. This has suffered some delay, from the desire to add to the narrative some information which is now being collected by Mr. Mather from the proprietors of the Fort Gloucester Mills, near Calcutta.

16. At a meeting held at Manchester, in July last, by those who were interested in the supply of cotton to England, one of the speakers (Mr. Atherton) asked "how far it was probable that European houses in Bombay might be disposed to establish agencies in India." No satisfactory answer was given to the inquiry, and at length the chairman stated that "there would be great difficulty in establishing those agencies, and also that it would be necessary to establish them to obtain a sufficient supply of cotton." He (the chairman) thought there was sufficient spirit in Manchester to provide funds to embark in the establishment of those agencies, as a mercantile transaction, and to send them orders for cotton."

Quoted from the
"Bombay Times,"
of 4 September
1847.

17. Now it is evident that the mode of operation followed in these provinces effectually provides against the very difficulty which was considered at the time insuperable at Bombay. The Government, while it conducts its experimental cultivation, establishes also on the spot an experienced agent, whom it encourages in every way to seek for the very orders which the Manchester merchants can find no one at Bombay able to execute; and not only so, but by showing exactly how such an agency can be established and worked, it greatly facilitates their multiplication.

18. To establish such agencies is the sole object of the Lieutenant-governor. When he sees them once in operation, he will consider the end accomplished. The Government must then of course immediately withdraw from the field; there will be no difficulty in withdrawal, then, at any time. The new agency will be ever ready to take over the stock in hand, and to reimburse the Government for what may have been advanced for that year; but till such an agency has been established, or till its establishment is pronounced hopeless, the Government cannot, with consistency, withdraw from the course on which they have embarked; for, if they do so, they will have left incomplete one promising mode of operation in a great national undertaking, in which they have already made great sacrifices, and from the success of which they will reap just honour.

19. The Lieutenant-governor trusts that this detail will show that the experiment now in course of prosecution has definite limits, and will be easily tested, and that he is desirous not to press its conduct at all further than may be absolutely necessary to judge of its result. On this understanding he is desirous to be furnished with authority to prosecute the experiment on the same basis as hitherto for another year, or till the conclusion of the season of 1848, the arrangements for which will not be made till May next. He desires me also to convey an assurance, that if the events which may occur between this date and May next render the further prosecution of the experiment to be then inexpedient, he will not avail himself of the authority now solicited.

20. I am further desired to express his Honour's wish that a copy of this despatch may be forwarded by the next overland mail for the consideration of the Honourable the Court of Directors.

I have, &c.

(signed) *J. Thornton,*

Head Quarters, 16 December 1847.

Sec. to Govt. N. W. P.

From *G. A. Bushby*, Esq., Secretary to Government of India, to *J. Thornton*, Esq.,
Secretary to Government North Western Provinces.

Sir,

I AM directed by the Governor-general in Council to acknowledge the receipt of your letter, No. 678 A., dated the 16th instant, regarding the prosecution of the experiments for the cultivation of cotton in the North Western Provinces, under the superintendence of Mr. H. Hamilton Bell, and to state that the same will be referred to the Honourable the Court of Directors by the next mail.

2. You will observe from my communication of the 18th December last that the Honourable Court (in their despatch, No. 13, of 1847)* desire that in concluding the arrangement for the next season with Mr. Bell, it should be stipulated that the advance to be made to him should be repaid, with interest, in the event of the experiment realising a profit. The
Honourable

* See Page 262.

I.
Bengal and
North Western
Provinces.

Honourable Court also wish that in all future shipments of experimental cotton the bills of lading should be made out in their favour, and the cotton consigned to the care of Mr. William Rathbone, their authorised agent in Liverpool. At the same time they express their willingness to take into consideration any application which Mr. Bell may make for placing a portion of the cotton in the hands of any parties whom he may name as possessing his confidence, in order that he may have full reason to be satisfied that all due means are taken for bringing it properly under the notice of the manufacturers.

Fort William, 31 December 1847.

I have, &c.
(signed) *G. A. Bushby,*
Sec. to Government of India.

Home Department. Revenue.—No. 1 of 1848.

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

WE have the honour, in continuation of our despatch, No. 22, dated the 31st December last, to transmit the accompanying communication from the Lieutenant-governor of the North Western Provinces, stating that your Honourable Court's instructions contained in your despatch, No. 13, dated the 20th October last, regarding the arrangement entered into with Mr. Hamilton Bell for the experimental cultivation of cotton in the neighbourhood of Agra, will be observed, and expressing a hope that before the commencement of the next season, in May, he may be in a position to give a decided opinion as to the expediency of a further prosecution of the experiment on its present basis.

We have, &c.
(signed) *Dalhousie.*
Fort William, 5 February 1848. *T. H. Maddock.*
F. Millett.

(No. 1155.)

From *G. A. Bushby*, Esq., Secretary to the Government of India, to the Secretary to the Government of the North Western Provinces.

Sir,

Home Depart-
ment. Revenue.

WITH reference to Mr. Assistant Secretary Shakespear's letter, dated 12th June 1847, No. 2517, to the address of Mr. Elliot, I am directed by the Governor-general in Council to transmit to you, for the information of the Honourable the Lieutenant-governor, the accompanying copy of a despatch from the Honourable the Court of Directors, No. 13, dated 20th October last, with its enclosures, relative to the arrangements entered into with Mr. Hamilton Bell for the experimental cultivation of cotton in the neighbourhood of Agra, and to draw the particular attention of his Honour to paras. five and six of the despatch.

Fort William, 18 December 1847.

I have, &c.
(signed) *G. A. Bushby,*
Secy. to the Govt. of India.

(No. 153 of 1848.)

From *J. Thornton*, Esq., Secretary to the Government North Western Provinces, to *G. A. Bushby*, Esq., Secretary to the Government of India, Home Department, Fort William.

Sir,

Home Depart-
ment.

I AM directed to acknowledge the receipt of your letter, No. 1155, dated the 18th ultimo, with its enclosure, regarding the arrangement entered into with Mr. Hamilton Bell for the experimental cotton cultivation in the neighbourhood of Agra, and in reply to state that the instructions contained in paras. five and six of the Honourable Court's despatch shall be observed. It does not occur to the Honourable the Lieutenant-governor to offer at present any further observations on the subject than are contained in my letter of the 17th ultimo, No. 678 A. His Honour hopes that before the commencement of the following season, in May next, he may be in a position to express a decided opinion whether or not the further prosecution of the experiment on the present basis is desirable.

Head Quarters, 15 January 1848.

I have, &c.
(signed) *J. Thornton,*
Secy. to Govt. N. W. P.

EXTRACT from Revenue Narrative, No. 2 of 1848, dated 30 May 1848.

49. Mr. Bell having submitted some samples of cotton of the current year's cultivation, together with a memorandum descriptive of the several kinds newly introduced, the specimens as well as a copy of the document were forwarded to the Secretary of the India House, for the purpose of being laid before the Honourable Court; a copy of the memorandum was also sent to the Government of India, who communicated it to the Agri-Horticultural Society.

I.
Bengal and
North Western
Provinces.

Cotton Experiment.
Samples of cotton,
with memo., for-
warded to Court
of Directors :
Rev. Pro., January
1848, Nos. 73 to
75 : Rev. Pro.,
February 1848,
No. 102.

EXTRACT from the Proceedings of the Honourable the Lieutenant-Governor of the North Western Provinces, in the Revenue Department; dated 14 January 1848.

From *H. Hamilton Bell*, Esq., Agent Cotton Experiment in the North Western Provinces to *A. Shakespear*, Esq., Assistant Secretary to Government North Western Provinces.

No. 73.

Sir,

UNDER instructions from the Honourable the Lieutenant-governor, I send herewith samples of cotton of the current year's cultivation on the experiment now conducting in these provinces, and I beg to accompany this by the annexed descriptive memorandum of the several kinds newly introduced.

I understand it to be the intention of his Honour that these samples should be forwarded to England, but I have no instructions on the subject.

I have, &c.

(signed) *H. Hamilton Bell*,

Agra, 17 December 1847.

Agent Cotton Experiment in N. W. P.

MEMORANDUM.

FOR transmitting a list of the various descriptions of cotton now in cultivation under sanction and instructions of the Government, it may not be thought irrelevant or misplaced to accompany this with some short account of each separate kind, as explanatory of the mode of proceeding adopted, showing its results, and thus perhaps leading to suggestions that may render our future progress greater, and more decidedly beneficial.

I have already in former papers noticed my decided preference for indigenous seed, as the basis at least of all my arrangements, and besides the kinds of which musters were sent home in the early part of the year, the report on which is not unfavourable, and of which subsequent shipments were composed, have met with some other descriptions which I think deserving of attention; amongst these are,

No. 1. *Sophur*.—Of which the seed was obtained from a place so named, on the confines of the Gwalior territory, near to Kotah. I accidentally heard it mentioned as superior, and immediately sent off a servant, in whom I could confide, to bring me a bullock load of the kupas, that I might learn whether the cotton merited its reputation, and to be sure of the seed as extracted by my own servants. In my opinion it is superior to the Bagcheenee, and it is in every other respect perfectly suited for cultivation in these provinces. It is perfectly hardy, comes quickly to maturity, and is fully as productive. It has attracted greatly the attention of the cultivators, and its introduction into these provinces will be facile and general. In several very carefully conducted experiments I have ascertained that the kupas yields the very large proportion of $32\frac{1}{2}$ per cent. of clean cotton. Our cultivation is on too small a scale to justify any statement of average production, but, at all events, it is in this respect fully equal, or rather superior to the Desee cotton of the Doab. This year we shall have some bales of this quality for shipment, and plenty next year.

No. 2. *Hybrid*.—I conjecture of Bagcheenee and Chundehree cotton. I have not myself any doubt on this point. I know nothing of botany, and to accident, not science, am indebted for this description. I think very well of it: it has all the good qualities of the *Sophur*, as to hardness and production, and almost equals it in the relative proportion of cotton and seed, the cleaned cotton being $34\frac{1}{4}$ per cent. of the kupas.

No. 3. *Produce of Coimbatore seed*.—Remarking in the newspapers that some cotton from thence had been sold at 7 *d.* per lb. in England, I obtained, through a kind friend at Madras, some of the seed. From the appearance of the plant I should consider it "New Orleans," but there is a marked difference in the shape of the seed. It will hardly succeed in these districts; and, although I think I may have influence enough to induce a variety of trials the ensuing season, I cannot hope it will answer, from the degree of irrigation it demands, its comparative limited produce, and the diminished relative proportion of cotton in the kupas, the mean of several trials varying but little, being only $25\frac{3}{4}$ per cent. Its fineness, and I think staple, are, however, so attractive that I will not give it up until I am satisfied success with it is hopeless.

I.

Bengal and
North Western
Provinces.

No. 4. Hybrid, of Bombay and Bagcheenee.—This very closely resembles the presumed hybrid noticed as No. 2; and the only reason I have for believing that there must be a difference is, that the flower in the former is white, and in the latter yellow. I do not know whether this is botanically conclusive of a difference of species, and in other respects, as regards production, proportion of cotton to seed, &c., they agree. I should add, that I believe I may say in every cotton field of my own cultivation, there are some plants which are white in the colour of their flower, and that the cotton invariably from these plants, so far as my observation goes, is superior to the perfectly similar plants contiguous, with a yellow blossom. I propose to extend the cultivation of this description as much as practicable.

No. 5. Bombay.—I describe this under this name, the seed reaching me by dâk, the address being in the handwriting of a gentleman then residing at that place, but it has almost perfect resemblance to the Chundehree cotton. It is fine, but it will never answer here, from the extreme tardiness of its arrival at maturity; and although the plant is exuberantly productive of cotton bolls, these are small, and the relative proportion of cotton and seed are discouraging, the former giving, in my trials, only 25 per cent. of the kupas.

No. 6. Of all I have introduced, this, the Jeypore, has attracted most regard. It is by far the most productive, the plants being large and covered with bolls, larger a good deal than the Sophar or Bagcheenee, and double those of the Desec cotton. The cotton seems to have a longer staple than the other descriptions, but it appears to be almost as harsh to the feel as the Dasie. In this field there are a good many plants with a white flower, the general colour being yellow, and these are decidedly the best cotton. I have about two maunds of the kupas of the white flowered Jeypore, and I hope for two more, which will give me seed for 150 beegahs next season. The mean relation of cotton to kupas is $38\frac{3}{4}$ per cent., but some trials gave me above 40 per cent. Of this I send a sample, that my opinion of its preferable quality may be tested in the home market. I am indebted to Major Ludlow, Resident at Jeypore, for the seed of this cotton, which I regard as of the highest promise.

No. 7. Although a variety of villages cultivate the Bagcheenee cotton, thus named, I fancy, from the chief village in that part of the pergunnah where it is grown, the produce of "Nundpore," "Bindwas," "Debee," and "Deoghur," has the highest reputation. This probably arises from the deep black soil there prevailing, but it is partially attributed to the careful selection of seed for cultivation. The women in seeding the cotton by the churka, are accustomed, whenever a large boll comes into their hand, to throw it aside into a basket placed for the purpose, and the same process is pursued when the basket's contents are freed from the seed. In this way the very finest bolls produce the seed, and they thus account for their superior cotton. That it is superior is undeniable; for, struck by the remarks, I sent, at some expense, a man to "Nioudpore, to get some seed, and used it in my seer* cultivation. The produce is undoubtedly better than our other Bagcheenee, which is fully equal to the general Gwalior description so named; and its ratio of cotton to kupas is remarkable, being no less on my trials than 38 per cent. The produce even this year will be of sufficient quantity to admit of being packed separately, and by that means we can obtain its accurate estimation in England. I have taken measures for a supply of seed for next year's cultivation from the villages in question, and from my own cultivation I can reckon on sufficient for some thousand beegahs.

No. 8. This cotton, which I term Oomurghur, originally was the produce of a few plants in a kay† sown with the Chundehree cotton. The shape of the leaf, and general appearance of the plant, led me to desire its being separately picked, and the seed set aside for the ensuing year. Whilst the produce of the Chundehree seed generally came so late to maturity as to be continually exposed to frost, and was also otherwise unsuitable, this flowered early, and was fairly productive and fine, and fully justified the trouble taken with it. The natives will now readily use the seed in their sowings. The cotton is $33\frac{1}{2}$ per cent. of the kupas.

No. 9. Seed of white flower Jeypore cotton.

No. 10. I trust it will be considered that these musters establish some progress; and although I fear it will take more time than I had anticipated to give us a fair prospect of success in a struggle partially for the home market, I see nothing to discourage the expectation that, ultimately, we shall effect such an improvement in the cotton of this country as will render it suited for many of the manufactories of Great Britain. I do not look much further than this just now; let us once secure a certain regular market at some price, let us get our cotton into use, and the rest will follow.

(signed) H. Hamilton Bell,

Agent Cotton Expt. N. W. P.

* Own, in contradistinction to ryot's cultivation.

† Field.

The following Letters are written :

(No. 136.)

No. 74.

From *J. Thornton*, Esq., Secretary to Government North Western Provinces, to
J. C. Melvill, Esq., Secretary to the Honourable the Court of Directors, India House.

Sir,

I AM directed by the Honourable the Lieutenant-governor North Western Provinces to Revenue Depart-
transmit to you, for the purpose of being laid before the Honourable the Court of Directors, ment.
the annexed copy of a letter from Mr. H. H. Bell, forwarding samples of cotton of the
current year's cultivation, with a memorandum descriptive of the several kinds introduced.

2. The samples referred to are also forwarded for the inspection of the Honourable
Court of Directors.

I have, &c.

Head Quarters,
14 January 1848.

(signed) *J. Thornton*,
Secy. to Govt. N. W. P.

(No. 137.)

No. 75.

From *J. Thornton*, Esq., Secretary to Government North Western Provinces, to
G. A. Bushby, Esq., Secretary to Government of India, Home Department.

Sir,

I AM directed to transmit to you, for the information of the Right honourable the Revenue Depart-
Governor-general in Council, the accompanying copy of a letter this day addressed to the ment.
Secretary at the India House, forwarding samples of cotton of the present year's cultivation,
for the inspection of the Honourable the Court of Directors, together with copy of Mr.
H. H. Bell's communication referred to therein.

I have, &c.

Head Quarters,
14 January 1848.

(signed) *J. Thornton*,
Secy. to Govt. N. W. P.

Home Department. Revenue.—No. 4 of 1848.

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

WITH reference to the despatch from the late Governor-general to the
address of your Honourable Court, dated the 4th October, No. 23 of 1847, we
have the honour to transmit the accompanying papers, which we have received
from the Lieutenant-governor of the North Western Provinces, containing
further accounts of the expenditure incurred on the cotton experiment carried
on by Mr. Hamilton Bell, and details of the cotton of the season of 1846-47,
shipped on board the "Surat" and "Guisachen," which sailed from Calcutta
in October last for Liverpool. The shipment consists of 1,660½ bales, of 300 lbs.
each, and is consigned to Messrs. Rathbone Brothers & Co.

2. The total expense in India on account of the cotton is Rs. 67,916. 10. 11.,
which, at an assumed exchange of 2 s. the rupee, gives - £. 6,791 13 4

Freight and insurance - - 1,844 5 -

Total cost at Liverpool - - £. 8,635 18 4

or about 4½ d. per lb.

We have, &c.

(signed) *Dalhousie*.
F. Millett.
J. H. Littler.

Fort William, 18 March 1848.

I.

Bengal and
North Western
Provinces.

EXTRACT from Revenue Narrative, No. 1, dated 16 February 1848.

COTTON.

Collection, No. 3.
Arrival of cotton
in Calcutta; gain
in weight from
moisture.

Para. 59, Revenue
Narrative of 1847.
Revenue Proceed-
ings, October 17th,
No. 190 to 192.

Para. 39. Mr. Allen, in reporting the arrival in Calcutta of the cotton despatched in June and July last, stated that the quantity on weighment was found to be in excess, which he attributed to the absorption of moisture in Bengal; this gain, should it prove equal on all the consignments, would lessen the cost to $3\frac{1}{2}d.$ instead of $3\frac{3}{16}d.$ per lb. For one parcel tonnage has been engaged to Liverpool, per "Surat," and it was in progress of shipment.

EXTRACT Agra Narrative, No. 2, dated 30 May 1848.

Mode of insuring
the cotton of this
year during its
passage to Calcutta.
Revenue Proceed-
ings, March 1848,
Nos. 163 and 164.

55. Mr. C. Allen, civil service, having solicited orders regarding the best mode of insuring the cotton crop of this year during its passage to Calcutta, his Honor observed that the plan proposed of forwarding the cotton uninsured was in conformity with the practice of the Government in other departments, and accordingly sanctioned its adoption, with the proviso contained in the last para. of that officer's letter, viz. that the experiment be debited with the premium, which would be merely a matter of account. His Honor at the same time observed, that the expense for churundars and chuprassees, which should be provided by the insurers, must not be debited in making up the account with Mr. Bell in addition to the premium of insurance.

Adjustment of
accounts.
Para. 28, Narrative
No. 5, of 1846.
Para. 49, Narrative
No. 4, of 1847.
Revenue Proceed-
ings, March 1848,
No. 216 to 219.

56. Mr. C. Allen, Civil Service, having requested an adjustment of the advances for the cotton investment standing in the Collector's inefficient balance, the accountant solicited and obtained the sanction of Government for charging the amounts, cited marginally, as follows,* the first under the head of "By account current with London," and the last under "Cotton experiment," subordinate to "By revenue charges general." A copy of the correspondence was at the same time furnished to the Government of India for communication to the Honourable the Court of Directors.

Levy of duties on
cotton imported
into Agra from
foreign states.
Para. 59, Revenue
Narrative, No. 5, of
1847.
Revenue Proceed-
ings, March 1848,
No. 381 to 384.

58. In compliance with orders of September 30th, Mr. Allen submitted his report respecting the transit duties levied on cotton in its passage from Rajpootana to Agra. A copy of that document was submitted to the Supreme Government, with remarks to the following effect: after adverting to some facts elicited by the communication, his Honor observed that his minute of August 20th last showed the injurious effect upon commerce of the customs duties levied in Rajpootanah and Central India; this was illustrated particularly with reference to the trade in grain, and the present documents proved the same injury to be done to the cotton trade by the same cause. Some of the best cottons came from Jeypoor, and it was evident that they could be raised at a small expense, but under the present system they could not reach the mart with any prospect of successfully competing with other cottons; supposing even the Jeypoor government to consent to reduce its duties, that would not be sufficient so long as cotton, in its transit along 100 miles, was exposed to the exactions of no less than 27 petty feudal chieftains, each of whom levied on an average 1 *a.* - $\frac{2}{3}$ *p.* on every maund; it was impossible that trade could flourish under such circumstances. The mode of dealing with the question proposed in the minute above-mentioned, was the most practicable that occurred to the Lieutenant-governor, but it would require a strong and a firm hand to place an effectual check upon those exactions. A copy of the 18th para. of the report was sent to the Resident at Katmandoo, with a view to obtaining information as to the value of the cotton trade said to pass across Nepal into Thibet.

EXTRACT from the Proceedings of the Honourable the Lieutenant-Governor of the North Western Provinces in the Revenue Department; dated 14 March 1848.

(No. 163.)

From *C. Allen*, Esq., Civil Service, to *J. Thornton*, Esq., Secretary to Government
North Western Provinces.

Sir,

Revenue.

I HAVE the honour to request the orders of the Honourable the Lieutenant-governor regarding the best mode of insuring the cotton crop of this year during its passage hence to Calcutta.

2. Last

	<i>Rs.</i>	<i>a.</i>	<i>p.</i>
* Net cost of investment shipped per ships "Surat" and "Guisachen" - - -	67,916	10	11
Amount contingent bill appertaining to the cotton experiment about to be submitted to Government - - -	197	14	6

2. Last year, Mr. Hamilton Bell insured with the Union Insurance Company of Calcutta, at $4\frac{1}{2}$ per cent., which was a very heavy rate, but native underwriters object to insure cotton hence to Calcutta.

3. The large number of failures in the Calcutta money market renders it, I think, problematical whether the payment there of the premium would insure recovery in case of loss. I would, therefore, propose sending the cotton to Calcutta uninsured.

4. Should this plan be sanctioned, Mr. Bell and myself would, of course, take especial care to employ only good and strong boats, and to send with them trustworthy churundars and chuprasees to take care of the cargo.

5. Should it be deemed desirable, there could be no difficulty in debiting the experiment with so much premium, the Government being its own insurers.

I have, &c.
(signed) C. Allen.

Agra, 2 March 1848.

(No. 1031.)—(No. 164.)

From J. Thornton, Esq., Secretary to the Government North Western Provinces,
to C. Allen, Esq., Agra.

Sir,

I AM directed by the Honourable the Lieutenant-governor to acknowledge the receipt of your letter, dated the 2d instant, regarding the best mode of insuring the cotton crop of this year during its passage to Calcutta, and in reply to observe that the plan you propose of forwarding the cotton uninsured is in conformity with the practice of the Government in other departments. His Honour has been pleased to sanction its adoption with the proviso contained in your last paragraph, which will be merely a matter of account. Revenue Department.

2. I am desired at the same time to observe that the charge for churundars and chuprasees, which should be provided by the insurers, must not be debited to the experiment in making up the account with Mr. Bell, in addition to the premium of insurance.

I have, &c.
(signed) J. Thornton,
Secy. to the Govt. N. W. P.

Agra, 14 March 1848.

(No. 960 of 1848.)

From J. Thornton, Esq., Secretary to Government North Western Provinces, to G. A. Bushby, Esq., Secretary to the Government of India, Home Department, Fort William.

Sir,

IN continuation of my letter, No. 622 A, dated the 30th September 1847, I am directed by the Honourable the Lieutenant-governor to forward, for transmission to the Honourable the Court of Directors, the accompanying copies of three letters from Mr. C. Allen, dated 30th September, 8th ultimo, and 1st instant, and of their respective enclosures; submitting further accounts of the expenditure incurred on the cotton experiment carried on by Mr. Bell, and containing details of the shipment of the cotton to England per "Surat" and "Guisachen."

2. The Lieutenant-governor desires me to request that these papers may be forwarded to the Honourable Court by the overland route.

I have, &c.
(signed) J. Thornton,
Secy. to Govt. N. W. P.

Agra, 10 March 1848.

I.
Bengal and
North Western
Provinces.

(No. 1, in No. 960 of 1848.)

From *Charles Allen*, Esq., Civil Service, to *J. Thornton*, Esq., Secretary to Government
North Western Provinces, Revenue Department.

Sir,

I HAVE the honour, in continuation of my letter of the 22d instant, to forward, for the information of the Honourable the Lieutenant-governor, copy of a letter received by Mr. Hamilton Bell, acknowledging the receipt of the cotton dispatched from this in June and July last.

2. It will be observed that the first dispatch of 845 bales was found on weighment to be in excess a quantity sufficient for 21 bales of 300 lbs. each, exclusive of one bale short delivered.

3. This gain in weight is, without doubt, caused by the absorption of moisture in the damp climate of Bengal, as compared with the hot winds which raged when the first parcels were dispatched; it is probable that the gain will be less in other parcels dispatched later in the season.

4. This gain, should it prove equal on all the cotton, will lessen its cost by about one-sixteenth of a penny per pound; thus making the average to Calcutta $3\frac{1}{8}$ d. instead of $3\frac{3}{8}$ d. per lb.

5. The charges shown by this letter are four-fifths of a penny for freight; that for insurance is not stated; but it can scarcely be more than one-fifth of a penny; making altogether one penny, which will, as I estimated previously, make the total cost to Liverpool under fourpence farthing a pound. I hope the drawback will pay the Calcutta charges, or very nearly so.

I have, &c.

(signed) *C. Allen*,
Civil Service.

Agra, 30 September 1847.

(True copy.)

(signed) *J. Thornton*,
Secy. to Govt. N. W. P.

(No. 2, in No. 960 of 1848.)—(No. 404.)

From Messrs. *Mackillop, Stewart & Co.*, Calcutta, to *H. H. Bell*, Esq., Agent to the
Honourable Company's Cotton Experiment, North Western Provinces, Agra.

Sir,

WE have the pleasure to advise the arrival of the dispatch of 845 bales cotton, for which invoices were enclosed in your letter of the 7th June.

We also beg to announce the arrival of the second dispatch of cotton of 780 bales, of which invoices were received by us under cover of your letter of the 21st July.

Of the 845 bales, 844 were safely received; but one was short delivered by the manjee; and we have recovered from him on that account 30 Company's rupees at your credit. The manjee's name is Bharoe, and the number of his boat 272. This cotton has been carefully screwed, and the original marks equally carefully preserved, and the peculiar mark of the Company affixed to each bale in addition. We annex a memorandum of the number of screwed bales, showing an excess of 19, besides a small quantity of packings, which will be sold, the proceeds being carried to your credit. The screws are only adapted to make 300 lbs. bales; and we found we could not confine the screwed bales to the exact number of the half screwed, as received by us.

For this parcel we have engaged tonnage to Liverpool per "Surat," a first-class vessel, at 5 l. per ton, and are in progress of shipment. We have effected insurance at 12 Company's rupees per maund, as instructed by you; and as you gave no specific instructions on that head, shall make the policies payable in London, in case of need. Bill of lading and policy of insurance go forward to Messrs. Rathbone Brothers & Co. The "Surat" will get away before the holidays.

We are now loading the 780 bales, and shall lose no time in having them screwed and dispatched in the same manner as the parcel of 845, of which you shall have due advice. We think we shall be able to make this shipment also before the holidays.

On

On recovery of the drawback on these two parcels of cotton, we will wait on you with a memo. of charges and sums at credit.

We have at length the pleasure to advise the sale at *Co's. Rs. 9. 6.* per bazar maund of the 241 $\frac{1}{2}$ bales of cotton, of which the dispatch to our care was advised in your letter of the 14th January; so soon as delivery is effected, we will render our account of sales, and pay the proceeds into the Treasury, sending you the duplicate receipt as desired. The cleanliness of this cotton has secured a price considerably beyond what would have been commanded by its quality.

Calcutta, 22 September 1847.

We are, &c.
(signed) *Mackillop, Stewart & Co.*

(True copy.)
(signed) C. Allen, c. s.

(True copy.)
(signed) J. Thornton,
Secy. to Govt. N. W. P.

(Copy.)
(No. 3, in No. 960 of 1848.)

MEMORANDUM of 845 BALES COTTON Screwed for Export to Liverpool for Account of the Honourable Company.

MARKS.				Half-screwed Bales.				Whole Bales.			
J.	-	-	-	62	Bales	-	-	-	63	Bales.	
M.	-	-	-	40	"	-	-	-	41	"	
D. B.	-	-	-	25	"	-	-	-	25	"	
G.	-	-	-	26	"	-	-	-	26	"	
S. x	-	-	-	21	"	-	-	-	21	"	
B. C.	}	-	-	16	"	-	-	-	16	"	
G.		-	-								
B. C.	-	-	-	148	"	-	-	-	152	"	
T.	-	-	-	235	"	-	-	-	241	"	
B. C.	}	-	-	272	"	-	-	-	278	"	
B.		-	-								
				845	Bales.						
Short landed				1	"						
				844	"	-	Rescrewed	-	863	Bales.	

Loose cotton, about two bales.

(signed) *M., S. & Co.*

(True copy.)
(signed) C. Allen, c. s.

(True copy.)
(signed) J. Thornton,
Secy. to Govt. N. W. P.

(No. 5, in No. 960 of 1848:)

The Honourable Company, in Account with *H. H. Bell*, Esq., Agent Cotton Experiment,
North Western Provinces.

1847:	<i>Dr.</i>	<i>Rs. a. p.</i>	1846:	<i>Cr.</i>	<i>Rs. a. p.</i>
31 July	To Cost and charges of cotton as dispatched to Calcutta, as per account rendered -	*67,462 10 8 64,661 10 8	25 July	By Treasury receipts, Nos. 1 to 12 - - - - -	132,000 - -
4 Dec.	- Charges in Calcutta, repacking and shipping, and as per account from Messrs. Mackillop, Stewart & Co. -	5,433 11 6	14 Oct.	- Sales of 241 $\frac{1}{2}$ bales of cotton sold in Calcutta, as per Messrs. Mackillop, Stewart & Co.'s account - -	5,433 13 6
" "	- Receipts of cotton of Mirzapore, Nos. 1 to 7, for cash paid into that Treasury -	31,287 10 8	3 Dec.	- Net sales of picking of cotton bags, &c., ditto - ditto	733 12 -
" "	- Receipt, No. 134, of General Treasury, Co's money, dated 15th December 1847 -	732 14 -	15 "	- Value from boat mangie of one (1) bale of cotton short delivered - -	35 - -
" "	- Receipt, No. 170, General Treasury, dated 22d January 1848 - - - - -	2,724 6 9	1847:		
" "	- Cotton gin account for sundry disbursements, as per contingent bill - -	1,097 14 6	21 Jan.	- Received of the collector of Government customs for drawback on 1,488 whole and five half bales cotton exported per "Surat," and "Guisachen" - - -	2,716 15 -
" "	- Postages charged by Messrs. Mackillop, Stewart, & Co.	3 - -			2,751 15 -
		110,018 11 7		Less commission 27 8 3	
	- Balance transferred to operations of account for this season - - - - -	*33,674 4 8 30,873 4 8			2,724 6 9
	<i>Co's. Rs.</i>	140,892 - 3		<i>Co's. Rs.</i>	140,892 - 3

(E. E.)

Agra, 31 January 1848.

(signed) *H. Hamilton Bell*,
Agent Cotton Expt. N. W. P.

(True copy.)

(signed) *J. Thornton*,
Secy. to Govt. N. W. P.

* Mr. Bell has agreed to transfer to this season's operations the 2,801 rupees deducted in former accounts for seed supplied, refuse bags, &c. This will reduce the first debit to the sum entered in *italics*, and increase by a similar amount the balance transferred, as noted also in *italics*.

(signed) *C. Allen*.

(No. 6, in No. 960 of 1848.)—(No. 941.)

MEMORANDUM of sundry Charges for 1,658 Whole and 5 Half Bales of Cotton, shipped by the Undersigned, on board the "Surat" and "Guisachen," for Liverpool, and consigned to Messrs. Rathbone Brothers & Co., for account of H. H. Bell, Agent, North Western Government Cotton Experiment Account.

Per "Surat":				Ms.	s.	c.	Rs.	a.	p.	Rs.	a.	p.
845 whole bales, each 300 lbs., or	-	B. maund	3,086	17	8							
Per "Guisachen":												
813 whole bales, each 300 lbs. }	-	B. maund	2,978	27	8							
5 half bales, each 150 lbs. - }												
1,658 whole bales	-	B. maund	6,065	5	0							
5 half bales, at Co.'s Rs. 10. 8. per B. maund	-						63,683	13	-			
Sold for Cash:				Rs.	a.	p.						
Good cotton, wg. B. mds. 8. 25. 12., at 9/2 per md.	-		78	14	-							
Chole cotton, wg. B. mds. 25. 6. 1 1/2, at 8/12 per md.	-		204	5	9							
Lashing, ink, &c. wg. B. mds. 197. 1., at 1/ per md.	-		197	-	6							
Gunnies, 1588, at 13/ %.	-		214	6	-							
B. maunds 29, at 10/8 per md.	-		39	1	9							
							733	12	-			
							Rs.	64,417	9	-		
Charges:												
Paid eight manglees, as per order, each at 10 rupees	-									80	-	-
Toll due on eight boats	-									151	9	-
Coolie hire for landing, exporting, picking, &c.	-									391	1	6
Cargo, boat hire for exporting	-									215	-	-
Screwing	-									2,618	2	-
Premium of Insurance payable in London:												
Per "Surat," on Co.'s Rs. 37,500, at 2 1/2 %	-						937	8	-			
Per "Guisachen," on Co.'s Rs. 36,000, at 2 1/2 %	-						900	-	-			
							Co.'s Rs.	73,500		Co.'s Rs.	1,837	8 -
Brokerage effecting ditto, at 1/2 %	-									367	8	-
Commission on Co.'s Rs. 64,417. 9, at 2 1/2 %	-									1,610	7	-
											Co's Rs.	5,433 11 6

Drawback not yet received.

(E. E.)

Calcutta, 4 December 1847.

(signed) Mackillop, Stewart & Co.

(True copy.)

(signed) H. Hamilton Bell.

(True copy.)

(signed) J. Thornton,
Secy. to Govt. N. W. Provinces.

I.

Bengal and
North Western
Provinces.

(No. 7, in No. 960 of 1848.)

NOTE of CLAIMS established by *Hurloll Sait*, in excess of his Invoices.

	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>
Error in duty on Tonk purchase at Sewai, 2,800 maunds, charged at 1 a. 6 p., but present charge really paid, 2 a. 5½ p. - - -	167 11 4	
Chowkedaree on road at villages - - - - -	104 7 -	
Charge made for place in Serai where carts are admitted at night -	44 6 -	
Theekadars - - - - -	25 12 6	
Mending bags on road - - - - -	27 12 -	
	370 - 10	
Less discount on Madopore currency at 6 per % - -	22 2 9	
		347 14 1
1,317 bags of cotton, Jeypore and Bhurtpore duty, at 6 p. excess in charge - - - - -	41 2 6	
103 mules, additional duty in Jeypore, at 4 a. - - - -	25 12 -	
273 ½ - - - ditto - - - at 3 a. - - - - -	51 4 6	
	118 3 -	
Add, batta - - - - -	2 1 1	
		120 4 1
Difference in Jeypore currency <i>Rs.</i> 2,782. 2. 9, charged as Madhopore currency at 13 per % - - - - -	361 11 -	
Less discount on Madhopore currency, at 6 per % -	21 11 2	
		339 15 10
Additional duty charged in Jeypore on 723 bags in invoice 1/2, actual duty paid 1/10/3 - - - - -	372 12 9	
Costs and duty at Bhurtpore - - - - -	22 15 6	
Hoondian on <i>Rs.</i> 395. 12. 3, at 5/8 per % - - - -	21 12 3	
		417 8 6
3,807 bales of sundries - - - - -		50 13 -
	<i>Co.'s Rs.</i>	1,276 7 6

Agra, 31 January 1848.

(signed) *H. Hamilton Bell*,
Agent Cotton Experiment N. W. P.

(True copy.)

(signed) *J. Thornton*,
Secretary to Govt. N. W. P.

(No. 8, in No. 960 of 1848.)

H. H. Bell, Esq., Agent North Western Provinces, Government Cotton Experiment, in Account with
Messrs. *Mackillop, Stewart & Co.*

1847 : 4 Dec. -	<i>Dr.</i>	<i>Rs. a. p.</i>	1847 : 14 Oct.	<i>Cr.</i>	<i>Rs. a. p.</i>
	To sundry charges on 1,658 whole and 5 half bales of cotton, shipped per "Surat" and "Guisachen," for Liverpool, and consigned to Messrs. Rathbone (Brothers) & Co. -	5,433 11 6		By net proceeds of 421 ½ bales cotton, as per accounts of this date - - - - -	5,433 13 6
	Postages - - - - -	3 - -	3 Dec.	By cash received for the sale of good cotton, B. md. 8. 25. 12, at 9½ - - - - -	78 14 -
	Balance paid the sub-treasurer, as per receipt - - - -	732 14 -		Chole, 25. 6. 1½, at 8½, 204 5 9	
				Lashing, ink, &c., 197. 1. 1. - - - -	197 - 6
				Gunny, 1,588, at 13/8 241 6 -	
				1 bale cotton, B. md. 3. 39, at 10/8 - - -	39 1 9
					733 12 -
	<i>Co.'s Rs.</i>	6,169 9 6		<i>Co.'s Rs.</i>	6,169 9 6

Calcutta, 4 December 1847.

(E. E.)

(signed) *Mackillop, Stewart & Co.*

Dependency.—Drawback when received.

(True copy.)

(signed)

H. Hamilton Bell.

(True copy.)

(signed)

J. Thornton, Sec. to Govt. N. W. P.

No. 9 in No. 960 of 1848.

STATEMENT.

I.
Bengal and
North Western
Provinces.

		Rs. a. p.
1847:		
15 Dec.	Received of the boat manglee value of one bale of cotton, short delivered - - - - -	35 - -
1848:		
21 Jan.	Received of the Collector of Government Customs, for drawback on 1,488 whole and 5 half bales cotton, exported per "Surat" and "Guisachen" - - - - -	2,716 15 -
	Co.'s Rs.	2,751 15 -
	Less our commission, at 1 per cent. - - -	27 8 3
22 Jan.	Balance paid into the Treasury, per Sub-treasurer's receipt - - - - -	Co.'s Rs. 2,724 6 9

(signed) Mackillop, Stewart & Co.

(True copy.)

(signed) J. Thornton,
Sec. to Govt. N. W. Provinces.

(No. 10, in No. 960 of 1848.)

From C. Allen, Esq., Civil Service, to J. Thornton, Esq., Secretary to Government North Western Provinces.

Sir,

I HAVE the honour in continuation of my letter of the 8th ultimo, to submit for the information of the Hon. the Lieutenant-governor copies of the invoices of the two dispatches of the Government cotton of last year.

2. The "Surat" and "Guisachen" sailed from Calcutta in October 1847, and have in all probability reached Liverpool before this.

Agra, 1 March 1848.

I have, &c.
(signed) C. Allen.

(True copy.)

(signed) J. Thornton,
Secretary to Govt. N. W. P.

(No. 11, in No. 960 of 1848.)

Invoice of 845 bales of Cotton shipped per "Surat," Harrison, Master, from Calcutta, by Messrs. Mackillop, Stewart & Co., to the Consignment of Messrs. Rathbone Brothers & Co., to Liverpool, for Sale and Returns on Account of Cotton Experiment of Honourable East India Company under Orders of Government, North Western Provinces.



J	62 bales each, containing 300 lbs. net weight	Julaha cotton.
M	40 - ditto - - ditto - - ditto -	Madopoor.
D B	25 - ditto - - ditto - - ditto -	Dholapoor Boree.
G	26 - ditto - - ditto - - ditto -	Gurckhera.
S	21 - ditto - - ditto - - ditto -	Silowree.
B C	} 16 - ditto - - ditto - - ditto -	Bangcheenee, ginned.
G		
B C	148 - ditto - - ditto - - ditto -	Bangcheenee, home grown.
B C	} 272 - ditto - - ditto - - ditto -	,, imported.
B		
T	235 - ditto - - ditto - - ditto -	Tonk.
845 bales. B. maunds 3,086. 17. 8., or Co's. Rs. 34,305. 2. 6.		

(True copy.)

(signed) C. Allen.

(True copy.)

(signed) J. Thornton,
Secretary to Govt. N. W. P.

I.
Bengal and
North Western
Provinces.

(No. 12, in No. 960 of 1848.)

Invoice of 813 Whole and 5 Half Bales of Cotton, shipped per "Guisachen," *Harrison*, Master, from Calcutta, by Messrs. *Mackillop, Stewart & Co.*, to the Consignment of Messrs. *Rathbone Brothers & Co.*, of Liverpool, for Sale and Returns on Account of Cotton Experiment of Honourable East India Company, under Orders of Government North Western Provinces.



C	186 bales each, containing 300 lbs. net weight, Chowrea Nawacee.
S X	25 $\frac{1}{2}$ - ditto - - ditto - - - ditto - Sheodaspore.
C S	220 - ditto - - ditto - - - ditto - Chassoo.
B K	46 $\frac{1}{2}$ - ditto - - ditto - - - ditto - Baskho.
B C	} 1 - ditto - - ditto - - - ditto - Baugcheenee, ginned.
G	
B C	2 - ditto - - ditto - - - ditto - Baugcheenee.
T	} 30 - ditto - - ditto - - - ditto - Tonk, bowed.
B	
T	192 - ditto - - ditto - - - ditto - Tonk.
L S	} 20 - ditto - - ditto - - - ditto - Subson, bowed.
B	
T	73 - ditto - - ditto - - - ditto - Tonk.
B C	} 6 - ditto - - ditto - - - ditto - Baugcheenee, imported.
B	
B C	4 - ditto - - ditto - - - ditto - Baugcheenee, home grown.
J	1 - ditto - - ditto - - - ditto - Julaha.
M	1 - ditto - - ditto - - - ditto - Madhopoor.
T	6 - ditto - - ditto - - - ditto - Tonk.
G	1 half bale - - ditto - - - 150 lbs. Gurkherah.
D B	1 - ditto - - ditto - - - ditto - Dholopore bree.
S	1 - ditto - - ditto - - - ditto - Silowaree.
	813 whole bales } B. maunds, 2,978. 27. 8., or Co's. Rs. 33,157. 8. 2.
	5 half bales - }

(True copy.)

(signed) C. Allen.

(True copy.)

(signed) J. Thornton,
Secretary to Govt. N. W. P.

(No. 257.)

From *G. A. Bushby*, Esq., Secretary to the Government of India, Home Department, to
J. Thornton, Esq., Secretary to Government of the North Western Provinces.

Sir,

Revenue.

I AM directed by the Governor-general in Council to acknowledge the receipt of your letter, No. 960, dated the 10th instant, with its enclosures, reporting the shipment to Liverpool of 1,660 $\frac{1}{2}$ bales of cotton of 300 lbs. each, being the result of the experiment carried on by Mr. Hamilton Bell for the season of 1846-47, and to state in reply that, as requested, the papers will be transmitted to the Hon. the Court of Directors by the mail under despatch.

Fort William,
18 March 1848.

I have, &c.
(signed) *G. A. Bushby*,
Secretary to Govt. of India.

Home Department, Revenue.—No. 6 of 1848.

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

WE have the honour to transmit the accompanying papers received from the Lieutenant-governor of the North Western Provinces regarding the adjustment of the amount disbursed on account of the cotton experiment at Agra, as reported to your Honourable Court in our despatch No. 4, dated the 18th instant.

We have, &c.
(signed) *Dalhousie.*
F. Millett.
J. H. Littler.
T. H. Maddock.

Fort William,
25 March 1848.

(No. 1116 of 1848.)

From *J. Thornton*, Esq., Secretary to Government, North Western Provinces, to
J. A. Dorin, Esq. Secretary to Government of India, Financial Department, Fort
William.

Sir,

I AM directed by the Honourable the Lieutenant-governor to transmit to you, for the Revenue Department information of the Honourable the Court of Directors, the annexed copy of a letter, No. 5145, from the Accountant, N. W. P., dated the 25th ultimo, with its enclosures, regarding the adjustment of the amount disbursed on account of the cotton experiment, together with copy of a letter this day addressed to that officer in reply.

Agra,
20 March 1848.

I have, &c.
(signed) *J. Thornton*,
Secy. to Govt. N. W. P.

(No. 1, in No. 1116 of 1848.)—(No. 5145.)

From *C. Grant*, Esq., Accountant, North Western Provinces, to *J. Thornton*, Esq.,
Secretary to Government, North Western Provinces, in the Revenue Department.

Sir,

I HAVE the honour to submit, in original, a letter from C. Allen, Esq., of the Civil Service, dated 5th instant, and to be enabled to comply with his request beg the favour of your obtaining the sanction of the Honourable the Lieutenant-governor N. W. Provinces, to my directing the Collector of Agra to charge the amounts as per margin,* in his next Treasury Account, the first under the head of "By Account Current with London," and the last under "Cotton Experiment," subordinate to "By Revenue Charges General."

2. I have verified the payments, amounting to Rs. 31,287. 10. 8, made into the Mirzapore Treasury, for which the Collector of Agra has already taken credit, and for the two payments made into the general Treasury, amounting to Rs. 3,457. 4. 9. Mr. Allen has furnished the sub-treasurer's receipts.

3. With your reply be pleased to return Mr. Allen's letter.

Accountant's Office, N. W. P., Agra,
25 February 1848.

I have, &c.
(signed) *C. Grant*,
Accountant, N. W. P.

(True copy.)

(signed) *J. Thornton*,
Secy. to Govt. N. W. P.

	<i>Rs. a. p.</i>
* Net cost of cotton investment shipped per ships "Surat" and "Guisachen" - -	69,916 10 11
Amount of a contingent bill appertaining to the cotton experiment, about to be submitted to Government - - - - -	1,097 14 6

I.
Bengal and
North Western
Provinces.

(No. 2, in No. 1116 of 1848.)

From *C. Allen*, Esq., C. S., to *C. Grant*, Esq., Accountant, North Western Provinces.

Sir,

No. 6761.

WITH reference to the sum of 1,32,000 Company's rupees advanced to me under Government orders, dated 21st May 1846, on account of cotton investments under the superintendence of Mr. H. Bell up to June last, I have the honour to request that you will, in communication with the Collector of Agra, make such an adjustment of the advances in question standing in that officer's inefficient balance as will relieve me to the extent of *Co.'s Rs.* 103,759. 8. 10., and to transfer the balance of *Rs.* 33,674. 4. 8., as per memo. in the margin,* to the cotton investment for the current year authorised in Government orders, dated 12th June 1847.

The sub-treasurer's receipts for *Rs.* 3,457. 4. 9. are herewith transmitted.

Agra, 5 February 1848.

I have, &c.

(signed) *C. Allen*, Civil Service.

(True copy.)

(signed) *J. Thornton*, Secy. to Govt. N. W. P.

(No. 3, in No. 1116 of 1848.)—(No. 134.)

Duplicate. General Treasury, Civil Pay Department,
15 December 1847.

Co.'s Rs. 732. 14.

RECEIVED from Messrs. Mackillop, Stewart & Co. the sum of Company's rupees Seven hundred and Thirty-two and Fourteen annas, stated to be on account of the cotton gin experiment of the Honourable Company's Government in the North Western Provinces.

(signed) *G. Udny*, Sub-Treasurer.

(True copy.)

(signed) *J. Thornton*, Sec. to Govt. N. W. P.

(No. 4, in No. 1116 of 1848.)—(No. 170.)

Duplicate. General Treasury, Civil Pay Department,
22 January 1848.

Co.'s Rs. 2,724. 6. 9.

RECEIVED from Messrs. Mackillop, Stewart & Co. the sum of Company's rupees Two thousand Seven hundred and Twenty-four, Six annas, and Nine pie, stated to be on account of the cotton experiments of the Government of the North Western Provinces.

(signed) *G. Udny*, Sub-Treasurer.

(True copy.)

(signed) *J. Thornton*, Secy. to Govt. N. W. P.

(No. 5, in No. 1116 of 1848.)—(No. 1115 of 1848.)

From *J. Thornton*, Esq., Secretary to Government, North Western Provinces, to
C. Grant, Esq., Accountant, North Western Provinces.

Sir,

Revenue Depart-
ment.

I AM directed to acknowledge the receipt of your letter, No. 5145, dated the 25th ultimo, with its enclosures, and in reply to inform you that the Honourable the Lieutenant-governor has

	<i>Rs.</i>	<i>a.</i>	<i>p.</i>
* Amount received from Agra Treasury - - - - -	1,32,000	-	-
Received by Mr. Bell's agents on account sale of 241½ bales of cotton in Calcutta, appertaining to the cotton experiment - - - - -	5,433	13	6
Net cost of cotton investment shipped to England per ships "Surat" and "Guisachen" - - - - -	67,916	10	11
Amount paid into the Mirzapore Treasury - - - - -	31,287	10	8
Amount paid into the general Treasury by Mr. Bell's agents, to credit of cotton experiment:			
One receipt, dated 15th December 1847 - - - 732 14 -			
One ditto, dated 22d January 1848 - - - 2,724 6 9			
	3,457	4	9
Amount of a contingent bill appertaining to the cotton experiment, about to be submitted to Government - - - - -	1,097	14	6
	1,03,759	8	10
	33,674	4	8

has been pleased to authorise the Collector of Agra to charge in his Treasury account the amounts specified on account of cotton experiment to the respective heads of "By Account Current with London" and "By Revenue Charges General."

2. The original enclosures of your letter are herewith returned, copies being kept for record.

Agra, 20 March 1848.

I have, &c.
(signed) J. Thornton,
Secy. to Govt. N. W. P.

(True copy.)
(signed) J. Thornton, Secy. to Govt. N. W. P.

I.
Bengal and
North Western
Provinces.

EXTRACT of a Letter from the Government of India to the Honourable the Court of Directors, dated 30 September (No. 20) 1848.

14. Subsequent to the receipt of your Honourable Court's Despatch, No. 2 of 1848, dated 21 March, the Lieutenant-governor reported that in accordance with the instructions therein contained, no further advances had been made for carrying on the experiment under Mr. Bell for another season.

(No. 302.)

From G. A. Bushby, Esq., Secretary to the Government of India, to the Secretary to Government North Western Provinces.

Sir,

WITH reference to Para. 8 of your letter No. 1289, of the 31st ultimo, I am directed to state, for the information of the Honourable the Lieutenant-governor, that the Governor-general in Council is unable to authorise any engagement being made with Mr. Bell for the season of 1848, except upon the modified footing sanctioned by the Honourable Court in para. 5 of their Despatch, No. 13 of 1847,* a copy of which was forwarded to you with my letter of the 18th December last, and to the instructions contained in which your attention was again requested in my reply to your letter of 16th December, No. 678 A.

Home Department
(Revenue).

I have, &c.
(signed) G. A. Bushby,
Secy. to the Govt. of India.

Fort William, 15 April 1848.

(No. 1289 of 1848.)

From J. Thornton, Esq., Secretary to Government, North Western Provinces, to G. A. Bushby, Esq., Secretary to Government of India, Home Department, Fort William.

Sir,

WITH reference to para. 4 of my letter of 30th September 1847, I am desired to forward, for the consideration of the Right Honourable the Governor-general in Council, the accompanying copy of a letter, dated the 16th instant, from Mr. C. Allen, reporting on the duties levied upon cotton in its passage from Rajpootana to Agra.

Revenue Department.

2. The cottons from Tonk and Chowree Newahee have both to travel from the mart to Agra, a distance of 160 miles, of which 100 lies through the Jeypoor country, 30 through Bhurtpore, and 30 through British territory.

3. The cost price may be assumed at 4. 12. the Company's maund, upon which the following duties will be levied.

							From Tonk.	From Chowree Newahee.
							<i>Rs. a. p.</i>	<i>Rs. a. p.</i>
Town duties	-	-	-	-	-	-	2 10	4 1
Transit duty, Jeypoor	-	-	-	-	-	-	11 7	11 7
„ Thakoors	-	-	-	-	-	-	3 1	3 1
„ Bhurtpoor	-	-	-	-	-	-	3 1	3 1
„ British	-	-	-	-	-	-	8 -	8 -
TOTAL - - - Rs.							1 12 7	1 13 10

N. B.—These rates are deduced from the statements made in para. 7 of Mr. Allen's letter.

In the former case the duties are 37 per cent. on the prime cost, and in the second, 39.

* See page 262.

I.

Bengal and
North Western
Provinces.

4. In Jyepoor alone, on a distance of only 100 miles, a duty is levied of 14 *a.* 8 *p.*, of which sum 3 *a.* 1 *p.* consist of fees to no less than 27 thakoors. This is a state in which British influence is particularly exerted. The country may be said to have been almost under British administration for some years.

5. The duty on the N. W. frontier line levied by this government is heavy, but it must be remembered, that this single payment exempts the cotton from any further demand throughout the whole extent of British India, and that a corresponding drawback is given on the export of the cotton to Europe. Any reduction of the present duty would most probably result in swelling the profits of foreign states, without materially benefiting trade. It seems that now a large portion of the trade from Rajpootana passes westward to Sukkur, and by Palee to Bombay. It is possible that the result of the abolition of the frontier duty would be to throw the terminal line of the two channels of traffic to the east and to the west, somewhat further westward.

6. The Lieutenant-governor, in his minute of 10th August last, showed the injurious effect upon commerce of the customs duties levied in Rajpootana and Central India. This was illustrated particularly with reference to the trade in grain. The present documents prove the same injury to be done to the cotton trade by the same cause. Some of the best cottons come from Jyepoor, and it is evident that they can be raised at a small expense; but, under the present system, they cannot reach the market with any prospect of successfully competing with other cottons. Supposing even the Jyepoor government to consent to reduce its duties, that will not be sufficient, so long as cotton in its transit along 100 miles is exposed to the exactions of 27 petty feudal chieftains, each of whom levies on an average 1 $\frac{1}{2}$ *p.* on every maund, it is impossible that trade can flourish. The mode of dealing with the question proposed in the Lieutenant-governor's minute above mentioned is the most practical that occurs to him, but it will require a strong and a firm hand to place an effectual check on these exactions.

7. Mr. Allen in his letter gives many interesting particulars regarding the cotton trade, and the price at which cotton can be furnished, as proved by Mr. H. Bell's operations.

8. The Lieutenant-governor is anxiously expecting the resolution of the Honourable Court upon his proposal of 16th December last, No. 678 A, to continue the experiment for another year. Mr. Bell naturally presses for an answer, as his private transactions in the ensuing season must greatly depend on the determination of Government upon this point. The Lieutenant-governor hopes that he may at any rate be furnished with distinct instructions by the 15th proximo, beyond which he cannot in justice to Mr. Bell delay the final determination.

9. A copy of Mr. Allen's letter and of the first six paras. of this despatch will be sent to Lieutenant-colonel Sutherland for his information.

10. A copy of para. 18 will also be sent to Major Thoresby, Resident in Nepaul, with a view to obtaining information as to the value of the cotton trade which passes from Bengal through Nepaul into China.

Agra,
31 March 1848.

I have, &c.
(signed) J. Thornton,
Secy. to Govt. N. W. P.

(No. 1, in No. 1289 of 1848.)

From C. Allen, Esq., Civil Service, to J. Thornton, Esq., Secretary to Government in the North Western Provinces.

Sir,

I HAVE the honour in reply to your letter of 30th September, No. 623 A, requesting information on the transit duties on cotton imported into Agra from foreign territories, to state that I have received from Mr. Hamilton Bell copies of the invoices which accompanied the cotton he imported, and I have also made inquiries from the merchants at Agra, who trade most extensively in cotton, and to report as follows:

2. The largest duty is taken in the Jyepoor country, where the European system of having rowannahs was introduced by Major Thoresby, and the transit duty over the whole territory fixed at 10 annas a maund. For the convenience of merchants this is levied at the rate of Rs. 1. 10. per load or pair of bales.

3. The load is 2 $\frac{1}{2}$ maunds Tonk weight (equal as nearly as may be to 2 maunds 15 seers Company's weight), this, at 10 annas a maund Tonk weight, yields Rs. 1. 11 $\frac{1}{2}$. per load; but it is customary to return one anna in every rupee, which reduces it to the sum mentioned, Rs. 1. 10. per load.

4. Exclusive

I.
Bengal and
North Western
Provinces.

4. Exclusive of the transit duties town duties are exacted at the several marts. At Charsoo and Chowree Newahee they are about nine annas a load. At Tonk they are three annas, and a second three annas is levied on Tonk cotton at Sawar.

5. After passing through the Jyepoor territory, a duty of seven annas per load (nominally 7½) is taken by the Bhurtpoor officers at Biana. It is stated that the Government receive only six annas, the remaining anna being the fee of the officials.

6. These are the principal avowed duties, but there are no less than 27 thakoors on the road, who exact certain fees which are stated at various sums, but I think the total cannot be less than seven annas a load. Protection from thieves is said to be afforded by some from this payment.

7. The total duties (exclusive of the Company's) on cotton imported from Rajpootana into Agra, are by these accounts Jyepoor Rs. 3. 1. and Rs. 2. 14. per load for Chowree Newahee and Tonk cotton respectively. The Jyepoor currency is about 5 ½ per cent. more valuable than the Company's, and the load is 2 maunds 15 seers, Company's weight. Reduce these totals, and the duty per Company's maund will be respectively Co.'s Rs. 1. 5. 10. and Co.'s Rs. 1. 4. 7. for those two cottons.

8. The absolute payments made by Mr. Bell on the Rajpootana cottons imported by him, tally as nearly as may be with these statements of the Agra merchants, who varied in their accounts and avoided giving straightforward or clear statements.

9. In fact, the duties being almost invariably farmed out by the native governments, the demand is not accurately fixed, and the demand declared by the law is generally higher than what is paid. A certain amount of higgling takes place between the farmer of the duties and the merchant, or rather the broker (or agent), for the person who settles and pays the different duties in detail is not the person who imports the cotton; he (the middleman) making a general charge for the whole.

10. The duties on cotton imported from Bagchenee, or any part of Gwalior, are much lower; exclusive of the Company's, the principal duties are those levied by the Gwalior and Dholpoor rajahs, each of whom takes about three annas per Company's maund, and about 1½ anna more is levied by thakoors and other zemindars as fees. Mr. Bell imported from Bagchenee 1,085 maunds of cotton wool at the following charges:

	Absolute Cost.	Average Cost		
		Per Maund.		Per lb.
		Rs. a. p.	Rs. a. p.	d.
First cost of the cotton - - -	6,713 12 6	6 3 -		1·811
The foreign duties - - - - -	495 10 9	- 7 4		0·134
The Company's duty - - - - -	570 9 9	- 8 4		0·152
Carriage to Agra - - - - -	510 12 3	- 7 6		0·137
Cost of bags and miscellaneous items - - -	589 8 -	- 8 9		0·160
TOTAL Cost to Agra - - - - - Rs.	8,880 5 3	8 2 11		2·394

11. His chief importations, 3,717 maunds 35 seers, were, however, from Rajpootana (Tonk, Charsoo, and Chowree Newahee), as these cottons formed more than half of the despatch to England, and as the first price was lower than that of any other cotton, I have thought it worth while to draw out a statement showing the total and the average cost per maund and per lb. of the cotton in all its component parts from the first purchase in Rajpootana to the delivery at Liverpool. The maund being taken at 82 lbs. and the rupee at 2 s.

	Total Cost.	Average Cost		Remarks.
		Per Maund.	Per lb.	
	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>d.</i>	
Price of 3,717 maunds 35 seers of cotton in Rajpootana -	17,509 11 6	4 11 4	1·378	The calculations are made on 3,717 maunds 35 seers, or 304,866 lbs.
Foreign transit duties - - - - -	5,183 2 4	1 6 4	0·408	
Co.'s duty, 8 annas per maund, received back on exportation -	—	—	—	
Carriage to Agra - - - - -	2,998 14 4	- 12 11	0·236	
Cost of bags, commission, &c. - - - - -	2,431 1 10	- 10 6	0·192	The calculations are made on 942 bales, or 282,600 lbs.
TOTAL Cost to Agra - - - Rs.	28,182 14 -	7 9 1	2·214	
Cleaning the 3,717 maunds and 35 seers from dirt and worm-eaten cotton - - - - -	2,304 2 4	- 9 11	0·188	
Screwing at Agra - - - - -	1,836 - -	- 8 6	0·156	
Freight to Calcutta - - - - -	2,513 11 4	- 11 8	0·213	
Insurance - ditto - - - - -	1,852 13 -	- 8 7	0·157	
Miscellaneous at Agra - - - - -	1,329 6 6	- 6 2	0·113	
Rescrewing the 942 bales in Calcutta - - - - -	1,485 7 -	- 6 10	0·126	
Commission and minor charges, ditto - - - - -	1,467 9 6	- 6 9	0·124	
Freight of 942 bales to England - - - - -	9,420 - -	2 11 8	0·800	
Insurance - ditto - ditto - - - - -	1,042 6 3	- 4 10	0·088	
TOTAL GROSS COST - - - Rs.	51,375 6 1	—	—	
Deduct value of refuse cotton, &c. sold - - -	2,328 2 11	—	—	
Net Cost of 942 bales at Liverpool - - - Rs.	49,047 3 2	14 3 9	4·166	

12. In calculating the average cost per lb. and maund of this cotton, the sums realised by the sale of refuse cotton were not deducted, because they are counterbalanced by a deficiency in the weight of the cotton, caused by cleaning. The 3,717 maunds 35 seers purchased by Mr. Bell equal 304,866 lbs., while 942 bales (the quantity sent to England) at 300 lbs. each, equal 282,600 lbs., showing a loss of 22,266 lbs. At Agra the deficiency appeared larger, but the cotton from imbibing moisture gained in weight about 2½ per cent. *en route* to Calcutta.

13. The calculations in the component parts of the cost to Agra, and in cleaning, are made on the quantity bought, viz., 304,866 lbs.; but the calculations after cleaning are all made on the quantity sent from Calcutta, viz., 282,600 lbs., that is, the quantity of cotton on hand at the time has been taken as the basis. The money realised by the sale of the refuse cotton makes the average of the total net cost tally with the totals of the component parts thus calculated to the nearest fraction.

14. The Company's duty paid before arrival at Agra has not been included in the charges, nor has the drawback paid on exportation been allowed for, on the supposition that these will counterbalance each other in all cases.

15. This statement calls forth a few remarks. The first point is the large sum paid in Customs dues. In my former letter I supposed that these would be not less than 20 per cent. on the first cost of the cotton, but they have proved to be 29½ per cent., and if the Company's import duty be added, the charge is not less than 40 per cent. on the first cost of the article. The next item is the carriage to Agra, the distance may be taken at 160 miles. This gives a charge of 2½ pence per mile per ton, taking the ton at 1,500 lbs., which is, I believe, the weight of a ton of pressed cotton by measurement.

16. Notwithstanding these heavy charges, the cost of Rajpootana cotton at Agra is not higher than cotton grown in the neighbourhood, and large quantities are annually imported into Agra. It is difficult to find out the exact quantity, but I would not estimate it at less than 50,000 maunds annually. It is not easy to comprehend how the people of Rajpootanah afford to grow cotton at so low a rate, and I hope that it is in a great measure owing to the superior productiveness and hardness of the variety. I do not believe that it is the soil alone or the difference of the land tax which enables the Jyepoor cultivator to produce his cotton at five-eighths of the cost of the cotton of the Doab or Bundelcund.

17. Mr. Bell tells me that he has heard that large quantities of Rajpootanah cotton have been taken this year to Sukkur for transport down the Indus: as the land journey is thus considerably more than doubled, the fact appears important, and as by that route the Jyepoor territory is, I suppose, avoided, it may persuade the chief of that country to lower his duties.

18. It may not be out of place to say a few words regarding the importance of the cotton trade at Agra, and the consequent advisability of relieving it as much as possible from all duties and restrictions. During last year 231,883 maunds of cotton wool crossed the Customs

toms line by the three chowkies of Pangree, Bickpooree, and Kukooba, which enclose Agra to the westward, and 94,078 maunds more were imported across the line at the chowkees of Futtehabad, Bah, and Burpooree to the south. It is impossible to say what quantity of cotton comes from the Dooab and this side of the river within the Custom line to Agra; but I should say that more than half a million of maunds, or say 140,000 bales annually leave this for Mirzapore, which is the cotton mart of Upper India, and the price there rules the price at Agra, Hatrass, and the other subordinate marts. The merchants here say that considerable quantities of cotton are sent from Mirzapoor to Patna for transmission up the Gunduck across Nepal and the mountains to Thibet and the western provinces of China.

19. To return to the statement: the next item calling for notice is the cost of cleaning. This was all done by hand, and was very expensive; the charge will in future years be diminished; something will be effected by machinery, and expertness will be gained by practice; even last year the cost of cleaning was not so heavy at the end as at the beginning of the season.

20. The cost of screwing reminds one of the double charge for that operation here and in Calcutta. At present this cannot be avoided, for there are up the country no double screws, or screws sufficiently powerful to prevent the necessity of re-pressing in Calcutta. Mr. Bell, however, intends, should the experiment be persevered in, to send to Calcutta for one or two of these superior screws. Eventually the powerful Colaba press, recommended so strongly by Mr. Mather, will probably be required here.

21. The freight to Calcutta is not high; the transport by the boats of the country is no doubt very slow, but the charge is only two-fifths of a penny per ton per mile, taking the distance at 800 miles, which is the distance by land between Agra and Calcutta.

22. The charge for insurance appears very high; it is 80 per cent. more than from Calcutta to Liverpool. At present natives refuse to underwrite, partly perhaps because it has not been the custom to send cotton hence direct to Calcutta, but eventually they will consent to take risks, when the present exorbitant rates must fall. The charge for commission, $2\frac{1}{2}$ per cent., is high in Calcutta, but no reduction at present there can be expected. The freight to England, 5*l.* a ton, was higher than the usual range, and more than will be on an average charged.

23. In conclusion, I would say that a reduction may be expected in many of the charges, and more especially in the first cost of the article at Agra, if the supposition be correct that the Jyepoor variety of cotton is more productive than any known in the Dooab. On this point, I would observe that the natives expressed themselves to me with more exultation about the Jyepoor variety than any other sown by Mr. Bell, and were more anxious for the seed.

Agra, 16 March 1848.

I have, &c.
(signed) C. Allen, C. S.

(True copy.)

(signed) J. Thornton,
Secy. to Govt. N. W. P.

(No. 2004 of 1848.)

From J. Thornton, Esq., Secretary to the Government, North Western Provinces, to
G. A. Bushby, Esq., Secretary to the Govt. of India, Home Department, Fort William.

Sir,

I HAVE the honour to acknowledge the receipt of your letter, dated April 15th. last, Revenue Department. regarding the experimental cultivation of cotton in the approaching season. The Lieutenant-governor has also had before him a copy of the Honourable Court's despatch, Revenue Department, No. 2, dated 21st March 1848,* which was forwarded direct by the Secretary at the India House.

2. The correspondence, as per margin,† with Mr. Bell will show how the transaction now stands. The cotton of last season, with the exception of about 100 bales, will be disposed of without loss in this country, and there will be no further advances for next year.

3. Mr. H. H. Bell has very justly observed, that it is not easy to reconcile the opinions that have been expressed at different times regarding the staple of the very same cotton. The position that has all along been assumed by Mr. Bell was this, that if he could find a cotton which, though of shorter staple than the American, was yet capable of being used by the manufacturer, he would furnish it at a price which would enable him to bring it profitably into the market. In 1846 he was assured by Messrs. Duckworth & Co. that
some

* See page 264.

† From Mr. Bell, dated April 27th; from Mr. Bell, dated May 1st; to Mr. Bell of this date; from Mr. Bell, dated 9th May 1848, with enclosures.

I.

Bengal and
North Western
Provinces.

some bales of cotton, which he then had sent home on his own account, answered this condition. In 1848 he is told that the same cotton, prepared in the same way, is not adapted for the purposes of the manufacturer on account of the inferiority of the staple.

4. It is probable that these discordant opinions may be explained by the different states of the market in 1846 and 1848. At the former period trade was active, and there was a spirited demand for cotton. At the latter period trade was depressed, and commercial failures, combined with political convulsions, made every person averse to enter upon new speculations.

5. However that may be, it is evident that the cotton sent home in 1848 is not of a quality which satisfies the conditions of the English market, and it is useless sending home more. Some new and more promising kinds of cotton have been raised during the last season from seed procured in the neighbourhood of Jeypoor. It has been favourably reported on by the brokers in Calcutta and by the manufacturers at Gloster Mills. This, to the extent of 50 bales, and the same quantity of the best quality of the other cotton prepared in a particular method, making in all 100 bales, will be sent home this year, but the rest will be sold in this country.

6. Mr. Bell will continue his experiments to discover a superior kind of cotton, but they will be on a small scale, and will not require the support of the Government.

7. The Honourable Court have noticed in the last paragraph of their despatch that the cotton received per "Surat" was inferior in "colour and cleanness to the samples previously forwarded." Of this there is no doubt. The samples were more carefully cleaned than the whole dispatch could be. They were intended as specimens of the staple. The failing of the present dispatch is in staple more than in colour and cleanliness, and that is the point for which it is difficult to account.

8. As regards the point of condition, it is not easy to reconcile the two reports forwarded by the Honourable Court as having been made by the two Manchester Chairmen. Mr. Bazley observes that its "clear and open condition render it more desirable." Mr. Turner says, that "there is no one good point about it," and designates it as "rubbish." The other opinions received by Mr. Bell coincide with the former of the above.

9. The result, then, of what has now been done, is this:—

First. The Bagchenee cotton cultivated by Mr. Bell, though much superior to the common Doab cotton, is not calculated for the purposes of the European manufacturer.

Second. Cotton in a clean and desirable condition can be landed at Liverpool for $3\frac{1}{2}d.$ the pound.

Third. Machinery may be largely employed for cleaning the cotton as well as freeing it from seed. A useful machine called the thresher is used for the former purpose, but the latter is still a desideratum.

10. There is still good reason to believe that in a period of greater commercial activity than the present, the path which has now been marked out may be followed with advantage to this country as well as to the English manufacturers.

11. The Lieutenant-governor thinks it due to Mr. H. H. Bell to state that the exertions of that gentleman have been unintermitting and very public spirited. Mr. Allen's assistance has also been most cheerfully rendered, and in itself highly valuable.

12. It will be the Lieutenant-governor's object to have the results of this experiment reduced to the form of a narrative and made public, so that the experience which has been acquired may not be lost.

I have, &c.
(signed) J. Thornton,
Secy. to the Govt. N. W. P.

Agra, 19 May 1848.

(No. 1, in No. 2004 of 1848.)

From *H. Hamilton Bell*, Esq., Agent Government Cotton Experiment in the North Western Provinces, to *J. Thornton*, Esq., Secretary to Government, North Western Provinces, Agra.

Sir,

I BEG you will do me the honour to place before the Honourable the Lieutenant-governor the following remarks on the cotton experiment, the details of which he was pleased to entrust to my management.

I have delayed till now this report, in the expectation of receiving from Liverpool this information, without which any conclusion I could have formed must necessarily have been entirely conjectural.

That information has at last reached me, and shows that we have been proceeding on unsound data, which seems to render it imperative to suspend existing operations, and withdraw from them, as far as practicable without loss.

With

With the exception of this, I trust inconsiderable deficit in the proceeds of the shipments to England, arising, as will be evident, entirely from the almost unparalleled condition of the home markets, resulting from the great monetary crisis of the past year, and therefore not legitimately chargeable on the experiment, no loss need be incurred on the transactions confided to my care by the Honourable the Lieutenant-governor.

Before advertng directly to the measures adopted here in prosecution of arrangements which were believed to be judicious for the accomplishment of the great object of Government, it seems merely consistent with propriety to notice, as succinctly as may be, the circumstances which led me in the first instance to address the Honourable the Lieutenant-governor on the subject of improvement of the quality and condition of the cotton of this country, so as to render it suitable to the home market.

The relinquishment of the experiments conducted by American planters, under the superintendence of Captain Bayles, in Bundelcund, had shown that the foreign seed which had been tried had failed. My own limited but carefully conducted trials for several successive seasons had been equally unsuccessful, and I was perfectly satisfied any general cultivation was entirely out of the question, as I had the honour of stating to Lord Auckland when the subject was agitated on his visit to Agra. I was persuaded we must recur to indigenous qualities, select the best, and gradually improve their quality by careful cultivation, and especially by selection of seed, and I trusted to this, and great attention in picking the cotton and freeing it from various impurities of leaf, bits of stick, sand, &c., for providing a cotton that might, though not desirable, be not absolutely unserviceable to the manufacturing interest of Great Britain.

I had pursued my experiment with seed of all the cottons enjoying local reputation, and about the time when the experimental establishment at Agra was broken up, was enabled to place before the Honourable the Lieutenant-governor the result of some trifling shipments to England. Copies of the letters as annexed, acknowledging these, seemed to justify the hopes that we had attained the first step, and the arguments by which I sought to induce the Government to support an experiment on a sufficient scale to afford it a commercial character. I respectfully submit that this was no unwarranted assumption. The sale, although insignificant in quantity, was for home consumption, with the remark that had the supply been larger, better prices would have been obtained; and surely this warranted the inference that the cotton was not unsuitable to the home demand.

I particularly request it may be borne in mind, that in the conclusions at which I arrived, and the suggestions I presumed to offer, I was greatly influenced by the striking remarks made to the Directors of the Honourable the East India Company, on the occasion, I believe, of the visit of the Chairman and Deputy to Liverpool on matters connected with some machinery for cleaning cotton, that the condition of the raw material was of even greater importance than length of fibre, as machinery could be adapted to any staple, and that clean cotton of equal quality, and in quantity to insure sufficient supply, was the great point for consideration.

Thus satisfied, and I hope it will be considered not unreasonably, that we had reached the starting point, (and I pray it may be borne in mind that I consider this a *sine quâ non* in our undertaking), I looked forward with some confidence to the future for progressive improvement, and I was therefore deeply concerned and disappointed at the contents of letters from Messrs. Rathbone Brothers & Co. of Liverpool, to whom the first year's consignment was made, which at once shows we were proceeding on an unsound basis, and seems to necessitate a suspension of our proceedings. Accompanying are copies of communications from Liverpool, which I beg you to place before the Honourable the Lieutenant-governor for such instructions as he may please to issue.

I must beg leave to draw the attention of his Honour to Messrs. Rathbone Brothers & Co.'s first letter, announcing the arrival of the "Surat," in which part of the varieties of cotton experimentally despatched last year to their address was shipped, and to their appraisal of the several qualities in their letter of the 19th February last. These have been appreciated as nearly as may be as in this bazar, as noticed in the letter to your address under date the 26th March 1847, and it is particularly satisfactory to me to find that my estimation of Bagchenee cotton grown at Oomurghur from imported seed was accurate, and that so far from having depreciated, it is more highly appraised than the same description of cotton imported from Bagchenee. This establishes the perfect suitability of the soil of the Doab for cotton cultivation; a fact which, indeed, has never been doubted, although the preferable quality of the Bagchenee cotton was by some surmised to result from the black soil of that locality. In this respect, therefore, the measures adopted are justified.

The report of Messrs. Rathbone Brothers & Co. is sufficiently discouraging. That the price is not remunerative is comparatively of little moment, for this would have been a mere question of the cost of production and relative value of any other descriptions with which our cotton might have been compared. The declaration of the gentlemen to whom Messrs. Rathbone Brothers & Company showed the musters seems conclusive of the absolute unsuitableness of the cotton for our spinners, and entirely discourages further trials with this description, by which it is evident the aim of the measures in which we have been engaged cannot in such case be realized. I am doubtful if we could look to material improvement of the cotton from what might be considered better cultivation, nor am I by any means persuaded that the native system of agriculture has all the demerits attributed to it by those who decry it, because different from that to which they have been accustomed.

The opinion expressed by Messrs. Rathbone Brothers & Company, and by the gentlemen

to whom they exhibited musters of the cotton, that our spinners could not use it, is entirely subversive of the object for which the Government experiment was commenced and conducted, and certainly coupled with the former communications from Messrs. Nicol, Duckworth & Co., where the spinners did use the same description of cotton, is singularly embarrassing; the more especially as in that case the cotton was not very clean, and had been cut by the gin, from both of which objections last year's shipments were free. The term fuzzy, by which the cotton is described, does not convey any positive idea to my mind; but I should conceive it to imply a condition induced by the employment of the native churka, which does greatly crumple up the cotton certainly, and gives it an unfavourable appearance. I had perceived this from the first, and was guided thereby in preparing the musters which were sent by Government to the Honourable Court of Directors, by myself to Messrs. Rathbone Brothers & Company, and I annex the opinions obtained by the Honourable the Court of Directors and by Messrs. Rathbone Brothers & Co. on my musters. It will be seen that Mr. Turner remarked quite correctly certainly, that cotton in quantity could not be sent in this condition, and of this I was perfectly aware, but so far from there being any deceit in this, it was evidently proper to show the material as prepared for spinning, before which the cotton undergoes some process analogous to carding, which lays the fibres regularly, and admits of immediate perception of the real length of staple, probably more accurately than under the usual process for its ascertainment. My object in this, was to show what the raw material really was that was offered to our spinners; for I felt that its looks were against it, and it was imperative that we should show the true quality of the cotton we sought to place before the manufacturers of Great Britain, as the first step in our exertions to merit their support.

It will be observed, the samples thus sent were decidedly approved of, and in neither report is there anything to show the cotton was unsuitable. In each the appraisement was high, from the peculiar cleanness of the musters, the general remark on the quality being that "its shortness of staple, however, still causes it to rank below American."

Yet this identical cotton, from which these very samples were taken, is now declared to be such, that they cannot use it. This assuredly could not have been inferred from the opinions on the musters, and there is certainly something perplexing, to use the mildest term that suggests itself, in the singular discrepancy in one case, of the remarks on the same raw material.

Unfortunately, therefore, we are wandering in the dark, and those to whom we recurred as guides, no doubt unintentionally, have still, in fact, misled us if the cotton be really such as is assumed by one gentleman, which, I confess, from the remarks previously quoted, I have difficulty in admitting to myself, and we have thus failed to obtain the point I hoped we had reached, and on which all the arguments by which I satisfied myself that we were in the right path were based. It seems we have not a cotton which, although not desirable, is serviceable: we have not, though in my mind indispensable, the starting point I assumed we had reached, which justifies speculative expenditure; and I confess I see nothing that can indicate this satisfactorily.

It was evident that the higher the numbers of yarn produced, the cotton, *ceteris paribus*, is superior. Our first discouragement was the report of the Fort Gloster Mills, that no higher than Nos. 14 and 16 could be spun from our cotton; I had previously ascertained that by the hand reel very much higher numbers could be spun, and on receiving this intimation repeated my trials, and ascertained that from No. 42 to 60 was the result, the first being obtained by the hand reel from imported Bagchenee cotton; the latter from a supposed hybrid of this and the Chundehree cotton. In addition, I tried, by the same spinner, some Oomrawuttee cotton spun at Fort Gloster Mills into No. 24. It is manifest, that if Nos. 16 and 42 are the corresponding numbers of yarn obtainable by the Fort Gloster Mills machinery and the native hand reel from Bagchenee cotton, No. 24, which the Oomrawuttee produced at Fort Gloster, should have given No. 62 here, yet the same spinner employed by me here could not turn out above No. 42; and after this I see not how confidence can be placed in such results. There are only two conclusions that offer themselves to my mind, either the Fort Gloster Mills machinery is imperfect, or if this is not the case, our cotton cannot be spun by machinery.

In this latter case machinery in present use is, of course, meant; for we have the declaration of several gentlemen of the first character in the trade, to the deputation from the Court of Directors, who some three or four years since proceeded to Liverpool to inspect some machinery, that what was desired was "cotton of equal quality and properly cleaned, in quantity, for as regarded machinery this could be adapted to any staple." I do not enter into the questions as to whether it is worth while, with advertence to the price of other growths for which present machinery is suited, to alter or construct machinery for our short stapled Indian cotton, even at 3 *d.* per pound, which I imagine the lowest price at which it can be landed at Liverpool, but I may permit myself to remark that this statement exercised considerable influence over my mind in reflecting on the practicability of rendering this country a source of supply of the raw material of our greatest manufacture. In reply to some inquiries made by me of the anomalous out-turn from the same cotton when spun by the hand reel or machinery, I was indirectly informed by some operative assistants at Fort Gloster Mills, that although higher numbers of yarn might certainly be spun by machinery from short stapled cotton than these out-turns, this must be done by a sacrifice of speed quite incompatible with profit, and therefore that no one could use it with advantage; I mentioned this in an interview with the Honourable the Lieutenant-governor the other day, and was much struck by what seems to me the extremely acute remark of Mr.

Allen,

Allen, that it was hardly apparent that this was a necessary result, inasmuch as what was gained in velocity was lost in power, and therefore that a diminished rapidity of movement might be compensated by the greater extent of machinery put in motion by the same power, and consequently of yarn produced. How far this could practically operate, I am incompetent to say, but the remark receives support from the previously noticed assertion that "machinery might be adapted to any staple."

It will be observed that Messrs. Rathbone Brothers & Company remark, that the cotton will sell best for exportation; and this is at least perplexing, for if abroad it should be spun into yarn: it seems singular that foreign spinners can do this with advantage and avail at a higher price, and with all charges of transport of the raw material which our spinners cannot use.

After all, the points for consideration and on which the whole turns are—

Is the machinery in use in England adapted to the description of cotton with which our trials must commence; or can the machinist of that country alter the existing, or construct new machinery, suitable for the staple that can be sent to market?

Will it suit the English spinner to pay at least 3 *d.* per lb. for such cotton relatively to a remunerating price to the American grower for his produce?

Unless these questions can be answered in the affirmative, I very much fear that the experiment into which the Government so liberally and frankly entered on the faith of the assurance I considered justified by the information which I had collected and laid before the Honourable the Lieutenant-governor, and in which I may perhaps in all humility be permitted to remark that I have sincerely and anxiously co-operated in seeking to give effect to his enlightened views, can hardly merit perseverance. In the disappointment I feel, I may be pardoned if I should express my regret that our proceedings should have scarcely met the countenance and support, &c., I anticipated from the great manufacturing interest of England. The vast extent of their operations, the regularity and permanent character of their demands for the raw material of our great manufacture, justify a deference to their opinions; but I think disappointment may be felt at the curt remark which so conclusively disposes of the result of our first step without trial. The annexed extract from my letter of the 21st October, shows that I anticipated and deprecated such foregone conclusions. I think that the interest taken by this Government, in a matter which it should be recollected is of English rather than Indian importance, demanded the utmost co-operation of those who press on the Honourable Court the importance of rendering India a source of supply of cotton, and that they should bear in mind that in the attempt to carry through their wishes, it is their interest alone which is primarily consulted. India has dispensed and can dispense with the cotton trade to England. They obtain for their inferior produce a price which at its minimum equals the rate at which the home market must be supplied with the superior quality, and the inducement to them for improvement is entirely wanting. The strong support of Government, and the exertions of those who seek to render the resources of India subservient to the prosperity of Great Britain, may do much, and I am willing to persuade myself that much is practicable; but to carry through the liberal and enlightened views of Government all must lend a hand, and much depends on the support and co-operation of the vast interest at whose instigation and for whose advantage these efforts are cordially made. I have already expressed my opinion that it is extremely unfortunate the co-operation of Government should be necessary in these experiments; at the same time that I feel it is indispensable. To insure full justice to the trials, the interest of producer and consumer should be identified, and if the Government of India assumed a burthen for the benefit of the mother country, it may at least be expected from those who will derive immediate advantage from these measures, if successful, that they will do their utmost to render this as light as possible. This identical description of cotton had been availed of for home consumption, and therefore it could be used; and I confess I should have anticipated that cotton brought to market under such circumstances would have at least been fairly tried, and not rejected to find a foreign purchaser. It must always be recollected, that this is no speculation of the Government of India; that they are not looking for a market in which they may dispose of the produce of the country entrusted to their rule; but that they are engaged in a great national object, pressed on the attention of the Honourable Court of Directors by a great and influential body, and that they are justly entitled to all the assistance which the cotton manufacturers of Great Britain can afford in an experiment made with a view to their advantage.

The accounts received from England, which declare the Bagchenee cotton unsuitable for home consumption, seem to supersede the necessity of much detail of the proceedings on its cultivation. Our experiment, however, has shown that it retains its locally acknowledged superiority, and therefore we appear to have established the questioned suitability of our soil for the cultivation of this important staple. It may be remarked, that we have introduced a cotton far superior to the Dese, and we have therefore conferred some benefit at least on the agricultural class. It will this season be extensively cultivated, and many zemindars who would not enter into engagements at fixed prices are yet prepared, as a consideration for receiving the seed at the usual price of the Dese, to concede the right of pre-emption of the produce at the market price of the time when it is gathered.

We have ascertained that the Bagchenee or any equally productive cotton can be grown at 7 rupees per Company's maund, and we have determined the charges under present circumstances at which it may be prepared for and conveyed to a market in England; we have approximately seen how far these are susceptible of reduction, and we have I think established

I.
Bengal and
North Western
Provinces.

blished that we can produce to sell in Liverpool at 3*d.* per lb. It seems unnecessary to minutely particularize the improvements that have suggested themselves, as the most material have not been practically availed of, in consequence of the uncertainty of duration of the experiment. One of the most important would be to press the bales here on the spot for shipment, thus superseding the necessity of repacking, with its various incidental charges, in Calcutta, and probably doing away with all the expense of landing and shipping, and the trial at least would have been made this season had Mr. Mather been able to procure in time the powerful screws necessary for this arrangement.

I regret that I am yet unable to report much progress in the most material of all projected improvements, that of the alterations in the native churka suggested by Mr. Mather, by which he expects greatly to increase their capability, improve their produce, and to prepare them so as to be worked by machinery instead of hand, an object of the highest consideration. To that gentleman every possible assistance has been given by Government, and I had hoped this season to have verified his, as yet, conjectural improvements, but various obstructions have impeded his arrangements, and as yet the result is undetermined. It is, however, satisfactory to know that Mr. Simms decidedly approves of the principle of their construction, and speaks most favourably of the improvement.

The expense of picking and moting the cotton, after it passes the churka, is considerable, and the difficulty of finding a sufficient number of hands for this purpose has proved embarrassing, and has led to the construction of some machinery which considerably facilitates this important operation. A slight alteration in one of these rendered it applicable to freeing the kupas from the quantity of sand and dirt it invariably contains, and the operation seems attended with the considerable advantage of opening out and loosening the fibres of the cotton from the seed, so that the churka works off considerably more kupas thus prepared. The machines only lately brought into operation are unquestionably useful and desirable, but the advantage attending them has not yet been accurately ascertained, though it certainly is considerable.

These are matters of some, nay, under some circumstances, of great consideration certainly; but after all, they are entirely secondary, for the cheapness of an unserviceable article is of little moment. The first and great aim is the production of a cotton that can be used, and till this is attained the reduction of cost to admit of competition for a market is out of the question. To this, and to this alone, our first attention must be given, for till this point has been reached, facts which then might be of great importance are utterly valueless. I thought I had reached this in the Bagchenee, and was satisfied the rest would follow, and therefore, although not very sanguine, still looked without much apprehension to the competition we ventured; but I find I was mistaken, and the greatest difficulty is still to overcome.

The letter I had the honour to address on the 17th December 1847 to Mr. Shakespear, Assistant Secretary, in transmitting some musters of cotton introduced in the past season into this part of the country, as also of some new descriptions, was accompanied by a report on the various qualities, which has I believe been forwarded with the musters to the Honourable the Court of Directors. I consider all of these superior to the Bagchenee, and I know indirectly they have been so declared at Fort Gloster Mills, though I have no official intimation. A few bales of each are on their way to Calcutta for shipment, but scarcely in sufficient quantity, and I think they are well worth a further trial. I wait the report of the Fort Gloster Mills, on four bales sent there to be spun into yarn, before bringing this matter to the notice of Government, for although I do not think their unfavourable opinion would deter me from submitting the suggestions that offer themselves to my mind on this subject, I wish to have the advantage of any remark of theirs by which my views might be supported.

The part that I have taken in the first operations seems to free me from the risk of being considered presumptuous, in noticing the arrangements I should think desirable under present circumstances.

I take it for granted after the letters from England, that the Bagchenee, whether fairly appreciated there or not, must be deemed a failure; that some, I trust inconsiderable, loss must be expected on last season's shipments; that a similar result is almost certain on any future, whilst the same object that induced the former no longer exists, as we are told the spinners will not use our cotton. I am persuaded the cotton will be more profitably realized in this country, and therefore in the face of the uncompromising declaration of Mr. J. A. Turner, in his note to Messrs. Rathbone Brothers & Co., forwarded to the India House, I certainly would not ship the produce now on hand. I still think the time will come when such cotton may be considered something better than rubbish; but Manchester is no market for us whilst this feeling remains.

I would, however, on the whole, send 200 bales of cotton; of these 51 would be composed of the kinds of which musters were forwarded to the India House, and the remainder Bagchenee. The latter I would prepare with the new cleaning machines; and we have fortunately some of our best kupas still on hand for this purpose; and I would desire the whole to be sold at any necessary sacrifice for home consumption, obtaining from the purchaser an accurate return of the result, which would be readily accorded with advertence to the grounds on which this information was solicited; or I would address the manufacturers to spin for account of the experiment the highest numbers of yarn they could reach with this cotton altogether, without advertence to the profitable rapidity of movement to the machinery, compensating them for any loss of time or power arising from the slower rate of motion, the sole object being the production of the finest yarn from the particular

raw

raw material. Perhaps some of the great spinners would try this in their zeal for the public benefit, but if not, spinners might be found who could make the trials for a fair consideration. In this way we should determine whether machinery, though unprofitably, could spin our cotton into useful numbers. The adaptation of the machinery to such restricted rate of motion is then the question, and the cost of the raw material, which would be an inducement to the alteration or construction of such machinery.

Soliciting the instructions of Government for my guidance,

Agra, 27 April 1848.

I have, &c.
(signed) *H. Hamilton Bell*,
Agent Govt. Cotton Experiment in N. W. P.

(True copy.)

(signed) *J. Thornton*,
Secy. to Govt. N. W. P.

(No. 2, in No. 2004 of 1848.)

EXTRACT of a Letter from Messrs. *N. Duckworth & Co.*, dated 6th February 1846, submitted to the Honourable the Lieutenant-Governor.

WE have had the samples of cotton per "Bland" examined and valued, and at foot we hand you the particulars. When the bales are landed we shall draw fresh samples, and have another valuation. The staple appears damaged by the process of cleaning; in other respects it is nice cotton, and highly valued, as compared with prices of Surat. We shall of course follow your instructions in selling and remitting the proceeds to Messrs. Palmer, Mackillop, Dent & Co., London.

Value of Cotton per "Bland."

No.	D. & Co.	9 Bales, pretty clean, but rather seedy, fine colour,	} 4 $\frac{1}{2}$ d.
		staple fair length - - - - -	

COPY of Letter from Messrs. *N. Duckworth & Co.*, dated 6th May 1846.

Dear Sirs,

WE are without any of your esteemed favours to reply to; and we now hand duplicate of our last reports and account sales of your small shipment of cotton per "Bland," netting 52 *l.* 17 *s.*, which we shall remit to your London friends.

If you can send us such quality of cotton we would dispose of it, if in larger quantity, at a higher price. Spinners require a large quantity of cotton when the quality suits them; it is not worth their while to change for small lots. With the prospect of a moderate crop in the United States, our market will improve, and we recommend the article to your attention.

We forward, under separate cover, a general price current of East India produce; we think the quotations safe ones. Trade is again rather improving, and money matters are becoming easier. The Manchester market remains pretty steady, with, if anything, an upward tendency.

We are, &c.
(signed) *Nicol, Duckworth & Co.*

COPY of a Letter addressed to Dr. *Royle*, dated London, 24 July.

Sir,

AT your request I have examined the small specimens of cotton from Agra. The cotton is perfect as respects cleanness and colour, but the staple is short, and scarcely therefore suitable for general purposes. I do not think it has been much injured in the process of cleaning. If the staple were a little longer,

I.
Bengal and
North Western
Provinces.

and equal in strength to the musters, there can be no doubt, I think, of such cotton entering largely into competition with American, provided it can be produced in quantity. The present value of these is about 6 *d.* to 6 $\frac{1}{2}$ *d.* per lb., the price of middling to fair American, which now rates one halfpenny per lb. lower than on the 1st instant.

(signed) *J. R. Tetley.*

COPY of Reports of 10th June 1847, Liverpool.

WE have carefully examined some samples of cotton which we describe as Surat cotton, perfectly clean, having apparently been carded, and the fibres lying quite regular. The whole are rather below the average length of staple of Surat cotton, though quite equal to it in strength.

No. 1. Coarse and short, value in its present state, probably 6 *d.* per lb.

No. 5. Silky, nearly fair in staple, bright colour, value in its present state, probably 6 $\frac{1}{2}$ *d.* per lb.

The other samples rank between these two, with little variation in quality, probable value 6 $\frac{1}{2}$ *d.* Of course the value must be considered as perfectly nominal, and is placed high in consequence of the cleanness and absence of waste owing to the cotton having gone through some unusual process.

The shortness of the fibre still, however, causes it to rank below American

S. G. Rathbone, Esq., Liverpool.

THE samples being so small it is difficult to judge with accuracy of their respective value; at present, cotton of any of the different growths, if as clean as the samples, would be worth from 5 $\frac{1}{2}$ *d.* to 5 $\frac{3}{4}$ *d.* per lb. In small quantities a higher price might occasionally be obtained on account of the beautiful colour; all the samples are deficient in staple, and seem to differ little from each other in this respect.

The colour and cleanness are admired, and if to these qualities could be added the long staple of the American cotton, their value would rise to 6 $\frac{1}{2}$ *d.* or 7 *d.* If the staple is at all injured by the process of cleaning (whether bowed or ginned) it would be well to attempt to separate only the heavy dirt, sand, sticks, and seed in India. The leaf and light dust being better removed by English machinery.

It is understood here that less injury is done in cleaning by the bow than the gin, the latter being used only on account of its greater cheapness. Experience, however, will show which process is best; as far as it is possible to judge from such small samples, a preference would be given to Nos. 1, 2, and 4. No. 5 seems to have also a fine silky character. Their chief fault is that of short staple.

EXTRACT of Letter of 21st October 1847, to the address of Messrs. *Rathbone Brothers & Co., Liverpool.*

I CONFIDE entirely in your obliging assistance to aid us in carrying out our present attempt to render India a source of supply of cotton for the home market, and am fully persuaded you will adopt the most judicious measures for this object. I am satisfied the best we can now do is the production of a cotton which may not be unserviceable, and all I want from the consumers is, that they will so far support us as not to disregard our shipments, although they may not be precisely the description of cotton they desire. Each season will, I trust, exhibit considerable improvement, and progressively, I almost confidently hope, we shall render the produce of these provinces generally suitable for home consumption, though we may fail to approach the highest qualities.

(signed) *H. Hamilton Bell.*

Per Overland, *via* Marseilles, Liverpool, 19th February 1848.*H. H. Bell, Esq., Agra.*

Dear Sir,

THE "Surat," from Calcutta, having arrived on the 8th instant, the experimental cotton by her has been landed and carefully examined. We describe and value it as follows; viz.



per lb.

J	64 bales (2 over), fair to good fair, fully fair colour, but little dirty,	3½ d.
M	41 bales (1 over), fair, fair colour, rather leafy, value - - -	3½ d.
Q B	25 bales (1 over), fair, fair colour, rather leafy, value - - -	3½ d.
G	23 bales (3 short), fair to good fair, fully fair colour, but little dirt,	3½ d.
S	21 bales, fair, fair colour, rather leafy, value - - -	3½ d.
T	236 bales (1 over), fair to good fair, fully fair, a little leaf -	3½ d.
B C	155 bales (7 over), good fair, good colour, but little dirt -	3½ d.
B C } B }	280 bales (8 over), nearly good fair, good colour, but little dirt -	3½ d.

845 bales.

This cotton appears to be similar to that which used formerly to be received under the name of Bengal; they are very short indeed in staple.

None landed of the

We are, &c.

(signed) *Rathbone Brothers & Co.*

mark



16 bales.

From Messrs. *Rathbone Brothers & Co.* to *H. H. Bell, Esq.,* Agent to the Hon. Company's Cotton Experiments of the North West Provinces, Agra.

Dear Sir,

Liverpool, 23d February 1848.

SINCE we addressed you on the 6th instant we have received your esteemed favours of the 8th and 23d December, contents of which we duly note for your guidance.

We observe that it can neither be the wish of Government that their cotton should be sold under the influence of the failures here, nor that it should be held for the chance of a failure in the American crop, and that we are not to realise to a loss, say at a lower price than 4½ d., without communicating with the Honourable the Court of Directors. We presume you merely mean by the influence of the recent disasters, forced sales under pressure, as we fear we must for years feel their secondary effects in want of confidence and somewhat restricted trade. At present the money market is very easy to parties of undoubted credit, or having security to offer.

We observe we are to remit the proceeds of cotton when sold in bills of the Honourable Company on the Bengal Presidency. We are much pleased to see that some of the cotton in preparation for this year is of superior quality, and we trust that this superiority chiefly consists in the increased length of its staple.

We have now to advise the arrival of the "Surat" with 845 bales of cotton, of which we hand you description and valuation, and we are very sorry that, after the care that has, from the condition of the cotton, evidently been used in their preparation, it should be so unfavourable. We have sent samples to the two associations in Manchester, and, awaiting their report, we showed the cotton to the chairman of one of them, J. Aspiral Turner, one of the largest users of Surat, and who has taken the most active interest in the experiments; and we also showed it to Mr. Pilkington, one of the most extensive dealers and manufacturers. They both said they could not use it on account of the shortness of

I.

Bengal and
North Western
Provinces.

the staple, and that it would only be taken in England for making common weft yarn. When there has been time to get the reports from the two Chambers of Commerce in Manchester, and from other manufacturers, we will wait upon you with them, and advise you what instructions we may receive from the Company as to the disposal of the cotton. It will sell best for export owing to its colour and cleanliness. Its sole defect is like that of most of the Bengal cotton, its short fuzzy staple, which leads our home manufacturers to prefer the Surat cotton, though inferior in colour and cleanliness. You will best be able to judge whether this defect may be best remedied by the introduction of the best seed from the Surat district or from America, and we need hardly add that if you should wish it from the latter place we should have much pleasure in getting it. The cotton grown from American seed would now sell at within a trifle of the price of middling American, which latter is now worth $4\frac{1}{2}d.$ per lb.; that is, such cotton as was received last year.

The ^{B.C.}_{G.} 16 bales Bagchenee ginned cotton have been mixed in stowing with the other marks, or there must have been some over owing to the delay in the Dock Company in rendering the landing accounts. We have been unable to get them set right in time for this mail, but will have it looked into.

Trade continues in a very depressed state in Manchester. You will observe that we have had a rise in the price of cotton owing to a reduced stock. The estimates of the American crop vary from 2,000,000 to 2,300,000, the majority estimating 2,100 to 2,200 bales. We have been very sorry for the wide-spread distress which must be the consequence of the disasters in the East India trade; but we think it proper to mention to you that we are not personally losers by any of them; indeed the gloomy views we had formed of the consequences of the immense engagements England had entered on, and the consequent profuse expenditure, prevented the last year from being an unprofitable one to us.

The position of the bank is now strong, and we shall probably have some months of an easy money market; but we fear we are still spending too much on railways.

We ought to have mentioned that if we receive orders to sell the cotton, we should ask a higher price than the relations we have given; but there is so little demand for such cotton for home use that its value is somewhat uncertain. We have checked our own broker's opinion by that of some others of the best judges of Surat and Madras cotton among our brokers.

You will remark that the B.C. 148 bales, to which you called our attention, is the cotton preferred here.

With the assurance of our utmost endeavours to give effect to your views,

We remain, &c.
(signed) *Rathbone Brothers & Co.*

From Messrs. *Rathbone Brothers*, of Liverpool, to *H. H. Bell*, Esq., Agra,
dated 6 March 1848.

Dear Sir,

WE have just received your valued favour of 29th January, but not in time to answer by this opportunity. It enclosed invoice of the cotton per "Surat" and "Guisachen," and we notice the extra expenses, which will not be incurred in future. We will cast these accounts out, and then reply next mail to such parts of your letter as have not been replied to in anticipation by our prior letters.

Our present letter serves to cover duplicates of our reports of the 19th and 23d February, and copies of our letters to Mr. J. C. Melvill, enclosing the reports of the Chamber of Commerce at Manchester. Upon the cotton per "Surat" we were not directed by you to communicate with the Company's authorities on this side; but as you instructed us not to sell the cotton under $4\frac{1}{2}d.$ per lb. except under directions from the Honourable East India Company, we concluded you wished us, should that price not be obtainable, to refer to them.

The

The "Guisachen" has arrived, and is discharging. By next opportunity we hope to hand you description and valuation of her cotton.

The unsettled state of affairs on the continent has depressed prices of cotton of American growth $\frac{1}{4}$ *d.* to $\frac{3}{8}$ *d.* per lb. Surats are not quoted lower, but would not realise such full prices as before the French news arrived.

We are, &c.
(signed) *Rathbone Brothers & Co.*

I.
Bengal and
North Western
Provinces.

COPY of Letter to *J. C. Melvill, Esq., &c. &c.*, East India House.

Sir,

Liverpool, 29 February 1848.

You have, no doubt, been advised by Mr. H. H. Bell, agent for the cotton experiment of the Company in the North West Provinces, that he had, by the approval of the Government, consigned to our care the produce of the experiment—845 bales per "Surat," and 813 bales, 5 H. B., per "Guisachen." We now enclose description and valuation of the former; the latter has only just arrived. The valuation of the cotton per "Surat" has been ready some days; but we waited in hopes of receiving from the Commercial Association and Chamber of Commerce in Manchester their report upon the cotton, to forward with our own; but not having yet received it, we send the original valuation forward without further delay, as we have no doubt that their report will confirm ours. Mr. J. Aspinall Turner, the chairman of the Commercial Association, has already seen the cotton, and confirms entirely the description and report given. The cotton has also been shown to the principal buying brokers here, and to the largest sellers of Surat, and also to Mr. Pilkington, one of the largest cotton dealers and manufacturers. We regret to say that all the reports agree in stating that the shortness of the staple is a defect rendering them of comparatively little value to our home manufacturers, though they seem to have been prepared with very great care, and rendered as valuable as the original quality of the cotton would admit.

The mark B. C. 148 bales, to which Mr. Bell drew our especial attention, is, you will observe, the best. We are glad to hear from Mr. Bell, that in this year's experiment some cotton of a different and superior description will be found. We trust the improvement will be in the length of staple and fibre of the cotton; and we have written to Mr. Bell, stating that it is to this point, in our opinion, that attention must be directed. He will be the best judge whether it is to be accomplished by the introduction of seed from America, or from the best of the districts which supply the Bombay market, whence the cotton comes very superior in this respect.

Such cotton as that per "Surat" generally brings the highest price for export to the Continent; and previous to the political disturbances in France we should have tried, if directed to sell, to obtain a somewhat higher price than that given in the valuations. At present our market is quite unsettled, and prices irregular. Mr. Bell directed us that we were not to sell the cotton at a lower price than would cover cost and charges, say 4 $\frac{1}{2}$ *d.* per lb. in all, unless we had directions from the Company to do so. You will see we cannot expect to realise this limit without a general rise in the price of cotton, and we should therefore be obliged by the instructions of the Company as to what course we are to pursue.

We need hardly say that if the Company should wish for seed from America, or to have the cotton tested by the manufacturers, every effort on our part shall be used to give effect to their wishes, and to carry out an experiment so important to the manufacturing interests of this country and the prosperity of India.

We have, &c.
(signed) *Rathbone Brothers & Co.*

COPY of the Report of *J. A. Turner*, Esq., Manchester.

Commercial Association, Manchester, 2 March 1848.

Messrs. *Rathbone Brothers & Co.*, Liverpool.

Dear Sirs,

I HAVE just returned from London, where I have been engaged chiefly with the subject of cotton cultivation in India, and I am compelled to set off again to-night to give evidence to-morrow before Mr. Bright's Committee.

This must account for my seeming neglect in not sending you a report on the Agra cottons; I did, however, report upon them to the chairman and deputy chairman, with whom I had a long interview on Monday; and I am in such great haste to-day, that I must content myself with saying generally, that the whole of these cottons are unsuited for spinning purposes in this country; they have not one good point about them, being of bad colour, short staple, and by no means free from dirt and stained locks of cotton. They may be sold for export, but I think they could not be sold here. If the India Company are spending money in the cultivation of such rubbish as this, they may as well give up the attempt at once. As to value, I should think $3\frac{1}{2}d.$ to $3\frac{1}{4}d.$ about the rate; but I would not give $3d.$ for them.

Yours, &c.
(signed) *J. A. Turner.*

COPY of the Report of *J. Bazley*, Esq., Chairman to the Manchester Chamber of Commerce.

Chamber of Commerce, Manufacturers, Manchester, 1 March 1848.

Messrs. *Rathbone Brothers & Co.*

Gentlemen,

I HAVE been duly favoured with your letters of the 21st and 29th ultimo, as well as with the samples of East India cotton to which you refer.

The staple of this cotton is so very short, poor, and insufficient, that the spinner could only apply it to the commonest and most inferior purposes, though the clear and open condition of it would render it most desirable. If the quality were as good as the condition, this cotton would be a great boon to our important trade, but its general merits place it so much below the useful American class, that it must be greatly improved before it could rank with the latter.

Yours, &c.
(signed) *J. Bazley.*

COPY of Letter to *J. C. Melvill*, Esq., Secretary East India House.

Liverpool, 3 March 1848.

J. C. Melvill, Esq., &c. &c., East India House.

Sir,

WE had the honour to address you on the 19th ultimo, respecting the Agra cotton per "Surat" and "Guisachen."

We now beg to hand you the reports of the chairman of the two associations in Manchester, which you will observe agree with our previous report with regard to the staple; you will remark, however, that Mr. Turner's opinion on the other points is by no means borne out by the other reports. Most of our principal brokers here have seen the cotton, and all agree that it is very good of its kind, as Bengal, and desirable for export; an exporter now is very
anxious

anxious to have the offer of it, and would, we think, give about 4 *d.* per lb. as middling; the staple quality of American cotton is only worth 4 $\frac{1}{2}$ *d.* per lb.; this shows that it by no means deserves the name of rubbish.

Waiting your instructions,

We have, &c.
(signed) *Rathbone Brothers & Co.*

(True copy.)

(signed) *J. Thornton,*
Secy. to Govt. N. W. P.

(No. 3, in No. 2004 of 1848.)

From *H. H. Bell*, Esq., Agra, to *J. Thornton*, Esq., Secretary to the Government of North Western Provinces, &c., &c., &c.

Sir,

In the letter I had the honour of addressing you on the 27th ultimo, I took the liberty of dissuading the shipment of the cotton of the current season to the English market, on the ground of its being declared such as the spinners would not use, and its more satisfactory realization in India; and with reference to that view, I beg to notice, for submission to the Honourable the Lieutenant-governor, the following as an adjustment I am prepared to carry out, to escape from the possibility of reproach of having for my own purposes injudiciously engaged the Government on an experiment involving pecuniary loss.

The advances of the season amounts to one lac and ten thousand rupees (1,10,000 rupees), increased in a trifling degree by remains of seed, old bagging, &c., of last year's operations, and I propose to assume this as a personal debit to be liquidated as follows:

I am the more disposed to do this in consequence of the large and disproportionate balances from the *suttahdars*, partly, indeed, resulting from hail, and still more from the worm, which in some villages caused great destruction; but also partially attributable to insufficient vigilance caused in some degree by the privation, from indisposition of supervision, on which I had placed my great reliance. Though extremely to be regretted, from the character of the people, who rarely pay unless constrained, these are for the most part, if not entirely, with very few exceptions recoverable by management, and gradually without litigation, except for the sake of example with the most refractory. They amount to rather more than 23,000 rupees, and for these I will render myself responsible, engaging to pay 12,000 rupees on the 31st December next ensuing, and 11,000 rupees on the 31st December 1849.

This would leave about 88,000 rupees to be provided for by the cotton, of which there are (8,000 maunds), eight thousand maunds, a few more or less, which will cost as near as may be 11 rupees per maund, delivered in Calcutta, and will, I think, sell there to net that price. I propose to despatch them to the consignment of Messrs. Mackillop, Stewart & Co., in my capacity of Agent of the cotton experiment of North Western Provinces, both because this is likely to ensure greater attention in the sale, and that it retains for Government the full security whilst unsold, and the realization of the entire proceeds under instructions to the consignees to pay these, as realized into the public treasury, for account of this government.

In the event of the cotton realizing less than the balance due on the debt assumed by me, I will make good such deficiency, and if the proceeds paid into the Treasury exceed this amount, credit shall be given me for any surplus in liquidation of my engagement for the balances above noticed.

It is understood that it is open to Government to direct the shipment to England of any portion of the cotton they may think fit, intimation of their pleasure being made on or before the 1st June next ensuing. In such case the price of the cotton sent, as its cost delivered in Calcutta, and all expenses of shipping, receiving, &c., are to go in reduction of the balance, for which I am answerable.

Agra,
1 May 1848.

I have, &c.
(signed) *H. Hamilton Bell,*
Agent Cotton Experiment N. W. P.

(True copy.)

(signed) *J. Thornton,*
Secy. to the Govt. of N. W. P.

I.
Bengal and
North Western
Provinces.

I.
Bengal and
North Western
Provinces.

(No. 4, in No. 2004 of 1848.)—(No. 2002 of 1848.)

From *J. Thornton*, Esq., Secretary to the Government of North West Provinces, to *H. H. Bell*, Esq., Government Agent for the Experimental Growth of Cotton, Agra.

Sir,

Revenue Depart-
ment.

I AM desired by the Honourable the Lieutenant-governor to acknowledge the receipt of your letters of April 27th and May 1st and 9th, regarding the experimental cultivation of cotton.

2. An early opportunity will be taken of bringing before the Honourable the Court of Directors your remarks upon the opinions expressed in Europe on the consignment of 1846-47. The Lieutenant-governor is persuaded that these opinions have been much influenced by the depressed state of the cotton market and manufacturing interests at home.

3. Your proposed arrangements for the consignment of 1847-48, which is now in process of despatch, are approved, but in conformity with your own subsequently expressed wish, the quantity which is to be despatched to England may be reduced to 100 bales, of which 50 will be the finer sorts, marked J. S. and B., and the remaining 50 bales will be your best Bagchenee, which has been cleaned by the threshers, so that the effect of that instrument on the staple may be ascertained. The remainder of the cotton, amounting to more than 1,000 bales, may be sold in this country to the best advantage, as it is evidently useless to send it home.

4. Your arrangements about the balances of last season, as detailed in your letter of May 1st, are approved.

5. You will be pleased to arrange with Mr. Allen how the lien of the Government, both on the produce of 1847-48 and on the balances, can be best secured.

6. As regards the coming season of 1848-49, you will observe, from the annexed copy of a letter from the Honourable Court of Directors (No. 2 of 1848,) dated March 21st,* that they are desirous that the operations be brought to an immediate close. His Honour understands that you entertain the same wish, so far as the pecuniary advances for cultivation are concerned. The further efforts you propose for discovering superior indigenous cotton will be at your own expense and risk. Every assistance will still be afforded you in the construction of improved machinery for the processes of cleaning and ginning.

7. At the same time that the Lieutenant-governor deeply laments the disappointment of the expectations of success which had been raised regarding this cotton, he is satisfied that no effort has been wanting on your part to ensure a successful result. He bears willing testimony to the liberality and public spirit which have marked your proceedings throughout, and he still entertains the hope that your persevering efforts may hereafter, in more propitious times, meet with a better reward.

I am, &c.

(signed) *J. Thornton*,
Secy. to the Govt. of N. W. P.

Agra, 19 May 1848.

(True copy.)

(signed) *J. Thornton*,
Secy. to the Govt. of N. W. P.

(No. 5, in No. 2004 of 1848.)

From *H. H. Bell*, Esq., Agra, to *J. Thornton*, Esq., Secretary to Government North West Provinces, Agra, &c. &c. &c.

Sir,

IN the last paragraph of the letter I had the honour to address you on the 27th ultimo, I took the liberty of expressing my opinion that it would be desirable to ship this season 200 bales of the cotton produced under the experiment committed to my management.

Bales 51 to be of the new descriptions, of which samples had been forwarded, and the remainder,

149 to be Bagchenee, prepared by the new cleaning machine.

200

Having subsequently been instructed that the Honourable the Court of Directors have directed the discontinuance of the experiment, as not likely to lead to the results I had anticipated, and having received Messrs. Rathbone Brothers and Co.'s further advices of the present and probable future state of the market, I would now venture to suggest that the quantity of Bagchenee be restricted to 49 bales, and that in the whole 100 bales only be sent.

sent. I think it extremely desirable that some Baugeeenee should go, to afford, by comparison with the new descriptions, the means of judging whether we have made the progress supposed, the more so, as this is partly admitted in the Report of the Fort Gloster Mills, which I have had the honour to place before the Honourable the Lieutenant-governor for his information, together with the letter to my address from Mr. J. H. Mather, in which it was enclosed. I further beg permission to add copy of a letter to my address, of the 3d instant, from the highly respectable brokers, Messrs. Colin Campbell and Burgess, of Calcutta, on the subject of two of the musters of new cotton.

If the opinion expressed on these statements be supported in England, it will at once appear that the measures adopted here were conducive to the object the Government desired to accomplish.

I.
Bengal and
North Western
Provinces.

Agra, 9 May 1848.

I have, &c.
(signed) H. H. Bell.

(True copy.)
(signed) J. Thornton,
Secy. to Govt. of N. W. P.

EXTRACT from Revenue Narrative, No. 4, dated 26th December 1849.

COTTON.

Para. 43. IN consideration of the failure of the crops, Mr. H. Bell requested that the arrangement which he had entered into for the recovery of outstanding balances on account of the cotton experiment be so far modified as to extend the payments for another year. His Honour, under the peculiar circumstances of the case, was pleased to acquiesce in that gentleman's proposal. The payments which should have been made in 1848 might therefore be made in 1849, and those of 1849 in 1850.

43. The Government of India forwarded copy of a despatch from the Honourable Court on the subject of the cotton cultivation in the North Western Provinces, desiring a statement showing the results of the experiment, and promising to send out some new machines, denominated "cottage saw gins." In reply, the Lieutenant-governor transmitted copy of a letter addressed to Mr. H. H. Bell, who was understood to be preparing a statement such as that required, and which he hoped soon to receive. With advertence to paragraph 3 of the despatch, the Lieutenant-governor observed that the subject of the customs duties in Rajpootana was fully discussed in his Honour's minute, dated 10th August 1847, which was submitted for the consideration of the Right honourable the Governor-general. Subsequent experience had greatly strengthened his Honour's conviction of the feasibility and expediency of the plan suggested. It would be gratifying to him to know that it had met with the support of the Most Noble the Governor-general, and that there was any prospect of its early sanction.

46. The Government of India having subsequently intimated that on the receipt of the cottage saw gins, such as were not required for Bengal would be forwarded to Agra, the Collector of the Agra district was requested to receive charge of them on their arrival, and to make over to Mr. H. H. Bell as many as he might need.

Collection, No. 3.
Extending payment
of the outstanding
balances for
another year.
Paras. 71 & 72,
Narrative, No. 3
of 1848.
Revenue Proceed-
ings, July 1849,
Nos. 90 & 91.
Cotton cultivation
in the N. W. P.
Cottage saw-gins,
&c.
Revenue Proceed-
ings, August 1849,
No. 190 to 193.
Revenue Proceed-
ings, September
1849; Nos. 164 &
165.

EXTRACT from the Proceedings of the Honourable the Lieutenant-Governor of the North Western Provinces, in the Revenue Department, of the 17th July 1849.

No. 90.

From H. H. Bell, Esq., to J. Thornton, Esq., Secretary to Government of North Western Provinces.

Sir,

Agra, 30 June 1849.

I HAVE to request that you will submit, for the consideration of his Honour the Lieutenant-governor, the following request, and circumstances under which it has been made.

When, in my somewhat indiscreet zeal to relieve Government from all risk of loss in the cotton experiment, which had originated on my representation, I offered to put myself in their place, subject to the liquidation of their advances from the realization of the existing stock of cotton and other dependencies, I incautiously engaged to be answerable for the outstanding balances, assuming these as realizable in two years, in which I promised to pay the amount of 12,000 rupees in all 1848, and 11,000 rupees in all 1849.

I.
Bengal and
North Western
Provinces.

It was clear I could derive no personal advantage from this, and might experience some loss; but I certainly did not anticipate this, and imagined that the definite obligation I had assumed, could not inconvenience me, as I was sure of making the collections within the stipulated time.

Under common circumstances my expectations would have been realised; very nearly 10,000 beegahs of cotton were cultivated, and I was justified in calculating that, at the average out-turn, the land rent and two-thirds of the balances would be realised.

That this result did not ensue arose entirely from the failure of the cotton crops of the season, so generally as to be almost universal. A very large proportion of the cultivation, comprising nearly all the first sowings, was a total loss, and ploughed up for the rubbee crop, and of the latter somewhat unseasonable sowings, which promised a moderate out-turn, much was destroyed by the few frosty nights in December, so that from more than one-half the cultivation nothing whatever was obtained, and from the rest insufficient to pay the land rent. In my own villages nearly 2,500 rupees arrears of rent arising from this cause were incurred. In one of these I had a very considerable seer cultivation, and the kupas, carefully watched and picked, was only worth seven-eighths of the rent, seed, irrigation, and all charges, being a total loss.

The small quantity of kupas received from villages under my absolute control did not suffice to reimburse the outlay I had been obliged to make on assisting the ryots to weed and effectually irrigate their fields, and its quality was so inferior, that I was not desirous of receiving it. Instead of yielding from 33 to 40 per cent. of cotton as previously, the highest outturn was 25 per cent., the fibre harsh, and shorter than that of the common Dessee cotton. I might have proceeded against the Bakeedars* for their balances, but such proceeding would have been harsh, when they had given such unquestionable evidence of their desire to liquidate them, as, including rent, their loss cannot have been less than two rupees per beegah. In many cases legal measures might have been ineffectual, and as a mere question of advantage it appeared to me preferable to grant them time.

I intimated this to Mr. Allen, whilst officiating Secretary to Government, as having, moreover, been the usual medium of communication in all matters connected with cotton arrangements, and begged him to place before the Honourable the Lieutenant-governor my request that the arrangement to which I had agreed might be so far modified as to extend the payments for one year, thus making the payments in all 1848 claimable in all 1849, and those of 1849 in all 1850. I have taken every step in my power for the early realization of the amount now due, and anticipate a favourable result in consequence of the late rains.

By a note from Mr. Allen, I find that the informality of my communication with him deprives it of the character of an official document, which is requisite, and therefore I am under the necessity of intruding upon you, requesting you to place the matter before his Honour. With the loss to which my want of caution has exposed me, the Government has, of course, nothing to do; but as my arrangements avowedly contemplated the liquidation of my engagements from the realization of assets and balances, I trust that my request will meet the favourable consideration of Government.

In my latest communication from Messrs. Mackillop, Stewart & Co., of Calcutta, they mention their expectation of being enabled shortly to transmit accounts of the result of the shipments to China.

I have, &c.
(signed) *H. H. Bell.*

(No. 2372 of 1849.)

No. 91.

From *J. Thornton*, Esq., Secretary to Government of North Western Provinces, to
H. H. Bell, Esq., Agra.

Sir,

Revenue Department.

IN reply to your letter of 30th ultimo, I am desired to inform you that the Honourable the Lieutenant-governor has been pleased, under the peculiar circumstances of the case, to acquiesce in your proposal to extend the payments of the outstanding balances of the cotton experiment for another year. The payments which should have been made in 1848 may therefore be made in 1849, and those of 1849 in 1850.

Head Quarters,
17 July 1849.

I have, &c.
(signed) *J. Thornton*,
Secy. to Govt. of N. W. P.

Copy of Correspondence sent to Mr. C. Allen in continuation of Docket of 19 May 1848.

* Defaulters.

EXTRACT from the Proceedings of the Honourable the Lieutenant-Governor of the North Western Provinces, in the Revenue Department; dated 28 August 1849.

(No. 98.)

From Sir *Henry Elliot*, K. C. B., Secretary to the Government of India with the Governor-General, to *J. Thornton*, Esq., Secretary to Government North Western Provinces.

No. 190.

Sir,

I AM directed by the Most Noble the Governor-general to transmit to you, Home Department, for the information of his Honour the Lieutenant-governor, the accompanying copy of a despatch from the Honourable the Court of Directors, on the subject of the cotton cultivation in the North Western Provinces, and promising to send Revenue Department, No. 4, dated 27th June 1849. out some new machines denominated "Cottage Saw Gins."*

Simla, 20 August 1849.

I have, &c.,
(signed) *H. M. Elliot*,
Secretary to the Govt. of India with the
Governor-General.

The following letters are written :

(No. 2865 of 1849.)

From *J. Thornton*, Esq., Secretary to Government North Western Provinces, to
H. H. Bell, Esq., dated 28 August 1849.

No. 192.

Sir,

I AM directed to transmit the accompanying extract, paras. 1 and 2, of a despatch from Revenue Department, the Court of Directors, No. 4, of 1849, regarding the cotton cultivation in the N. W. Provinces, and to observe, that the Lieutenant-governor understands that you are now preparing a statement showing the pecuniary results of the experiments, and hopes that he may soon have the satisfaction of receiving it.

Head Quarters, 28 August 1849.

I am, &c.
(signed) *J. Thornton*,
Secy. to Govt. N. W. P.

(No. 75 A.)

From *J. Thornton*, Esq., Secretary to Government North Western Provinces, to Sir *Henry Elliot*, K. C. B., Secretary to the Government of India with the Governor-General; dated 28 August 1849.

No. 193.

Sir,

WITH reference to the Court's despatch, No. 4, of 1849, which accompanied your letter dated 21st inst., I am directed to transmit copy of a letter this day addressed to Mr. H. H. Bell, Revenue Department, and to observe with advertence to para. 3 of the despatch, that the subject of the Customs duties in Rajpootana was fully discussed in the Lieutenant-governor's Minute, dated 10 August 1847, and which was submitted for the consideration of the Right Hon. the Governor-general.

2d. Subsequent experience has greatly strengthened his Honour's conviction of the feasibility and expediency of the plan then suggested. It would be gratifying to him to know that it met with the support of the Most Noble the Governor-general, and that there was any prospect of its early sanction.

Head Quarters, 28 August 1849.

I have, &c.
(signed) *J. Thornton*,
Secy. to Govt. N. W. P.

* See Page 969.

I.
Bengal and
North Western
Provinces.

EXTRACT from the Proceedings of the Honourable the Lieutenant-Governor of the North Western Provinces, in the Revenue Department; dated 18 September 1849.

No. 164.

(No. 551.)

From *W. Grey*, Esq., Under Secretary to the Government North Western Provinces, to *R. Thornton*, Esq., Assistant Secretary to Government North Western Provinces.

Home Department,
Revenue.

* Revenue, No. 5
of 1849, dated
27th June.

Sir,

WITH reference to the despatch from the Honourable the Court of Directors, noted in the margin,* a copy of which will doubtless have been communicated by the Secretary to the Governor-general, I am directed by the President in Council to state, for the information of his Honour the Lieutenant-governor, that the Government of Bengal has been directed, on receipt of the cottage saw gins, after reserving as many as may be required for Bengal, to forward the remainder to Agra.

I have, &c.

(signed) *W. Grey*,

Fort William, 18 August 1849. Under Secretary to the Government of India.

The following letter is written to Collector of Agra:

No. 165.

(No. 3020.)

From *R. Thornton*, Esq., Assistant Secretary to the Government North Western Provinces, to *C. C. Jackson*, Esq., Collector of Agra.

Sir,

Revenue Depart-
ment.

I AM directed by the Honourable the Lieutenant-governor to transmit to you the accompanying copy of a letter, No. 551, from the Under Secretary to the Government of India, Home Department, dated the 18th ultimo, and to request that you will receive charge of the cottage saw gins therein mentioned on their arrival, and make over to Mr. H. H. Bell as many as he may require.

I am, &c.

(signed) *R. Thornton*,

Head Quarters,
18 September 1849.

Assistant Secretary to the Government,
North Western Provinces.

Copy forwarded for the information of Mr. Bell.

(True extracts.)

(signed) *W. Blackburn*,
Reporter of Proceedings.

EXTRACT from Revenue Narrative, No. 3, dated 20 October 1851.

COTTON.

Collection, No. 4.
Adjustment of
Accounts of the
Cotton Experi-
ment, paras. 43 &
44, Rev. Narr.,
No. 4 of 1849.
Rev. Pro. August
1850, No. 318 &
319; Rev. Pro.
April 1851, No. 60
to 69.

43. Mr. Allen, with reference to orders of the 27th August 1850, submitted Mr. Bell's accounts of the cotton experiment for the year 1847-48. These papers having been examined in the Accountant's office, the result was shown in a memorandum, dated March 31, 1851, with reference to which the following orders were passed.

44. The three items marked (A)* were, as recommended by Mr. Allen, debited to the experiment.

45. The

* (A) To sundries over-estimated	-	-	-	-	-	Rs. 1,301	-	-
Estimated sale of seed, less realized	-	-	-	-	-	600	-	-
Old taut ropes, &c. over valued	-	-	-	-	-	200	-	-
						Rs. 2,101	-	-

45. The item marked (B)* would be debited to the experiment, and adjusted with the Home Government, in the same manner as other similar items.

46. The cost of the cotton lost by the burning of a boat in the Ghazeepore District, it had been already determined, was to be borne by the Government. The sum of 271 rupees, realized by the sale of the damaged cotton, would be credited to the experiment, and the balance, Rs. 6,891. 8., debited to the same head.

47. The sums (D)† and (F)‡ had been credited in the public Treasury. The charge (E)§ was sanctioned, and would be debited against the experiment, as should also the item H (Rs. 255. 1. 10. for stores from the magazine) or such portion of it as might ultimately be found due.

48. The Lieutenant-governor accepted Mr. Allen's recommendation that the balance (G)|| of Rs. 24,589. 10. 3., still due from Mr. Bell, should be received from him in two equal instalments on the 31st December 1851, and the same date of 1852.

49. His Honour thanked Mr. Allen for his services in adjusting this account, and begged he would express to Mr. Bell the regret which was experienced at the loss which he appeared to have sustained in this public-spirited effort. His Honour could not renounce all hope that benefit would yet result from these exertions; and it would give him great satisfaction if they proved the means of ultimately opening out a field of mercantile enterprise to Mr. Bell himself.

EXTRACT from the Proceedings of the Honourable the Lieutenant-Governor of the North Western Provinces, in the Revenue Department; dated 27 August 1850.

The following letters are written:—

(No. 743 A.)

No. 318.

From *J. Thornton*, Esq., Secretary to the Government of the North Western Provinces, to *H. H. Bell*, Esq.

Sir,

I AM desired by the Honourable the Lieutenant-governor to call your attention to the purport of my letter of July 17, 1849, copy of which is annexed, and to beg that you will favour him with information as to the adjustment of the accounts to which that letter alludes.

Revenue Department.

2. The accounts of the last year of the experimental cultivation of cotton under your superintendence have not yet been furnished. It would be most satisfactory to the Lieutenant-governor to receive these accounts on the earliest practicable date; and he trusts that their transmission will not be delayed.

3. The

* (B) Shipment of Cotton per "Palestine"	-	-	-	-	Rs. 4,341	15	9
Charge on ditto	-	-	-	-	411	5	8
					Rs. 4,752	11	5
† (D) Treasury Receipt to C. Allen, Esquire	-	-	-	-	Rs. 33,525	13	9
Ditto	-	ditto	-	-	2,562	6	6
Ditto	-	ditto	-	-	14,005	4	3
					Rs. 50,693	8	6
‡ (F) Engagements payable 1st week of December 1850	-	-	-	-	Rs. 12,438	15	-
Ditto	-	-	on 31st December 1850	-	11,000	-	-
					Rs. 23,438	15	-
§ (E) Sundry charges	-	-	-	-	Rs. 935	15	6
(G) Balance still due from Mr. Bell or Mr. Allen	-	-	-	-	Rs. 24,589	10	3

I.
Bengal and
North Western
Provinces.

3. In addressing to you this communication, the Lieutenant-governor has in constant recollection your public-spirited exertions for the improvement of the cultivation, both in connexion with the Government during the prosecution of the experiment, and from your own resources, both before and after that period. To these exertions he will always be prepared to bear ready testimony, and suitably to acknowledge the consequent obligations under which you have laid the public, and the Government which is charged with promoting the national interests. But his Honour is bound to remember that he must render a true and faithful account of all public money, for the disbursement of which he has been the advocate and the channel. It is much the subject of regret that he has been unable as yet to discharge himself of this duty; and he trusts that you will place it in his power speedily to do so.

I have, &c.

(signed) J. Thornton,

Head Quarters, Secy. to the Govt. of the N. W. P.
27 August 1850.

No. 319.

(No. 744 A.)

From J. Thornton, Esq., Secretary to the Government of the North Western Provinces, to C. Allen, Esq., Civil Service, Futtighur.

Sir,

I AM desired to forward for your information the annexed copy of a letter this day addressed to H. H. Bell, Esq., regarding the accounts of the last year of the experimental cultivation of cotton.

2. The Lieutenant-governor has had much reason to thank you for the cheerful and valuable assistance you rendered him through the progress of this interesting experiment. Without the prospect of your assistance he would have hesitated to embark in an undertaking of that magnitude. Your familiarity with the whole subject, and your aptitude for details of this kind, renders your aid peculiarly desirable in finally closing the accounts, and summing up the whole proceedings.

3. The arduous duties of your present office, perhaps, leave you little leisure for the performance of work extraneous to your proper sphere; but the Lieutenant-governor will feel himself under peculiar obligations to you, if you will point out how the accounts can be finally closed, and the transaction terminated. Any assistance which can be of avail to you will be readily granted, and if your temporary relief from your present duties, and your further presence at Agra, would enable you to accomplish the object, your wishes to that effect will be consulted.

I have, &c.

(signed) J. Thornton,

Head Quarters, Secy. to the Govt. of the N. W. P.
27 August 1850.

EXTRACT from the Proceedings of the Honourable the Lieutenant-Governor of the North Western Provinces, in the Revenue Department; dated the 7th of April 1851.

(No. 60.)

From H. H. Bell, Esq., to J. Thornton, Esq., Secretary to the Government of the North Western Provinces.

Sir,

I HAVE received the honour of your letter of the 21st ultimo, with its enclosures. I perfectly recognise the obligation the last imposes, and I have to express my regret that any deviation from its conditions should have arisen. The payment of the sum for which I pledged myself will, however, take place within the limitation intended in the letter you refer to, although the first instalment has, by circumstances, quite beyond my control, been, most unexpectedly by me, delayed for some months.

I will

I will see to forwarding the accounts desired as quick as possible. They now necessarily form themselves into a mere open cash account for the responsibilities I assumed.

I am extremely obliged by your communication of the Honourable the Lieutenant-governor's sentiments; the only claim to which I make any pretension is unremitting, if not always very judicious zeal. I confess I regret the trial of this was not prolonged. I still retain implicit confidence that as the new system came into work, its advantages would fully have developed themselves, unluckily too late now for the expected emergency to which our manufacturers must look from short American crops. On the trifling scale my ability admitted, I persevered in my trials, and I trust that my small shipment on its way to England will not pass unnoticed there, for it was far more with the object of justifying the confidence his Honour was pleased to place on my exertions, than to seek personal advantage, that the trifling consignment was made. The present expression of his sentiments more than repays me, and leaves me without a wish for anything further. I regret his enlightened views were checked, but their revival could not affect me individually.

I have &c.

Oomurghur, 6 September 1850.

(signed) H. H. Bell.

I.
Bengal and
North Western
Provinces.

From C. Allen, Esq., Civil Service, to J. Thornton, Esq., Secretary to the Government of the North Western Provinces.

Sir,

I HAVE the honour to submit Mr. Hamilton Bell's accounts of the cotton experiment for the year 1847-8, as required in your letter, No. 74, dated 27 August last.

No. 61.

2. Mr. Bell's accounts and explanation are dated 5th November 1850, and the last cash payment was made on the 29th of January 1851. This, with my special duties at the Presidency, prevented an earlier compliance with the orders under acknowledgement, and former ones to the same purport.

3. The amount of my debit in the books of the accountant, North Western Provinces, for the cotton experiment, stood at Rs. 1,13,674. 4. 8.; to this was subsequently added, as a matter of account, the sum of Rs. 255. 1. 10. for stores issued from the Agra magazine, but as those stores were returned, with the exception of a few files and perishable tools (see the duplicate receipt, Enclosure No. 5), I have not included the sum. Should the Military Board have advised the Accountant of the value assigned to the returned stores, that value must be deducted from Rs. 255. 1. 10, and the remaining small sum debited to the experiment.

	Rs.	a.	p.
9 Nov. 1848	-	33,525	13 9
19 Feb. 1849	-	2,562	6 6
31 July 1849	-	14,605	4 3
3 Jan. 1851	-	3,686	7 3
29 Jan. 1851	-	19,752	7 9
		<u>Rs. 74,132</u>	<u>7 6</u>

4. Mr. Bell opens his accounts (Enclosure No. 2) with the same balance of Rs. 1,13,674. 4. 8., in liquidation of which he has paid at different times,—

	Rs.	a.	p.
In cash - - - - -	74,132	7	6
A hundred and two bales of cotton shipped to Liverpool in September 1848, with Calcutta charges on the same - - - - -	4,752	11	5
Cotton boat lost near Ghazeepore, insured by Government, under orders dated 14 March 1848 - - - - -	7,162	8	-
Sundry charges not debitable to Mr. Bell for bill (Enclosure No. 3) - - - - -	935	15	6
Sundries over-estimated in closing the accounts of 1846-47 - - - - -	2,101	-	-
Total amount to the credit of Mr. Bell - - - - -	89,084	10	5
Leaving a balance realizable from Mr. Bell - - - - -	24,589	10	3
	<u>Rs. 1,13,674</u>	<u>4</u>	<u>8</u>

5. The cotton shipped to Liverpool realized a net sum of 363 l. 12 s. 6 d., as per copy of account sales, Enclosure No. 6; the cotton was sold on the 17th of February 1849, at 3½ d. per lb. all round, and the money paid into the Home Treasury, apparently on the 2d of June 1849.

<i>Rs.</i>	<i>a.</i>	<i>p.</i>	<i>£.</i>	<i>s.</i>	<i>d.</i>
4,752	11	5	at 2s.	-	475 5 5
					363 12 5
					£. 111 13 -
4,752	11	5	at 1s. 10d.	435 13 4	
					363 12 5
					£. 72 - 11

6. Taking the exchange at 2s. the rupee, the net loss (with which of course Mr. Bell has nothing to do) of this transaction was 111 *l.* 13 *s.*, but at the exchange of the day, say 1 *s.* 10 *d.* the rupee, the loss was only 72 *l.* 0 *s.* 11 *d.*

7. The item of *Rs.* 7,162. 8. is a regular charge, for Government insured the cotton; a trifling quantity of the cotton was recovered and sold by the magistrate, Mr. French, and the proceeds, *Rs.* 271, carried to the credit of Government.

8. The item of *Rs.* 935. 15. 6., detailed in the voucher No. 3, was expended in experiments on cotton cleaning machinery, and there can be no question of the propriety of at once passing the bill, and charging it to the experiment.

Balances due from parties who died before Mr. Bell made himself responsible	<i>Rs.</i>
Property over-estimated	1,801
In striking the balance of 1846-47	600
	200
Total	<i>Rs.</i> 2,101

9. The item of *Rs.* 2,101 is composed of three sums, and Mr. Bell, in the second paragraph of his letter, Enclosure No. 1, gives strong grounds for admitting the charge. The balances to the extent of *Rs.* 1,301, had become irrecoverable before Mr. Bell engaged to make them good, he consequently pleads that he is not liable, and the other sums arose from a quantity of cotton seed and other property not realizing the amount expected, and properly the previous year's accounts should be debited with the sum of 800 rupees or 600 + 200.

10. With a very strict audit, there might be a question regarding this item of *Rs.* 2,101, but I am of opinion that the charge is equitable under the circumstances.

11. The remaining balance of *Rs.* 24,589. 10. 3. Mr. Bell proposes to pay in two equal moieties, on the 31st of December this year, and on the same date next year, 1852, and he claims this indulgence on the ground that he has been a large pecuniary loser by his public-spirited exertions, attended with great labour and anxiety to himself.

12. There can be no doubt that Mr. Bell has been a great loser, but as he has declined to show the whole of his accounts I cannot tell the exact amount, which, indeed, materially depends on his ability to realize the outstanding balances, shown in Enclosure No. 4 to be *Rs.* 13,802. 9.

13. It has been a great disappointment to me not to receive the detailed accounts, but when Mr. Bell took the responsibility of the whole venture, he acquired the right of keeping all particulars to himself.

14. The Honourable the Lieutenant-governor is so fully aware of the energy and ability, with which Mr. Bell has applied so much of his valuable time to the personal superintendence of every detail in the experiment, that any notice from me on the subject would be supererogatory.

15. When Mr. Bell undertook the whole money responsibility, it is self-evident that he could reap no pecuniary benefit from the change, for by the previous arrangement he was entitled to any profit that might accrue, and he is now made a debtor to the State, through, to use his own words, "his zeal to relieve Government from all risk of loss in the cotton experiment, which had originated on his representations."

16. If detailed accounts had been furnished, I think it would have been my duty to request his Honour to relieve Mr. Bell, in some measure, if not altogether, from the absolute pecuniary loss, but, under the circumstances, I merely mention the fact, and beg that he be at least allowed the indulgence desired, of two years' grace to pay his liabilities.

17. I could wish, in sending up the accounts, to have given a summary of the whole proceedings, and I still hope Mr. Bell will be persuaded to record his experience, but without his aid and without full information from him, I feel unable to renew the experiment.

18. The two years 1846-47 and 1847-48 were the most unfortunate ones that could have been selected as regards prices in England, which is the ingredient of most consequence.

	<i>£.</i>	<i>s.</i>	<i>d.</i>
Indian charges at 2s. the rupee	475	5	5
Liverpool charge	72	11	5
	347	16	10
29,906 lbs. at 4½ <i>d.</i> per lb.	545	3	2
	£.	<i>s.</i>	<i>d.</i>
Indian charges at 1s. 10d. the rupee	435	13	4
Liverpool charges	72	11	5
	508	4	9
29,906 lbs. at 4¼ <i>d.</i> per lb.	506	4	6

19. It has, however, been proved that good marketable cotton can be bought cleaned in this country and landed at Liverpool, with all charges paid, for 4½ *d.* per lb. when the exchange is at 2s. the rupee, and for 4¼ *d.* per lb. when the exchange is 1 *s.* 10 *d.* the rupee. Such cotton was at the most depressed period of the trade readily bought at an average of 3½ *d.* a lb. I believe this average to be accurate for the first year as well as the last, but as all the papers regarding the shipments of 1847 are not with me in Calcutta, I cannot speak positively.

20. This result on the worst exchange, that of 2 s. the rupee, entails a loss of 111 l. 12 s. on a total outlay of 547 l. 16 s. 10 d., or 20 per cent. The per centage of loss on the former shipments was very similar, but I believe rather less. The present price of cotton in England is fully 80 per cent. higher than it was in 1848, and a shipment in 1850 would have resulted in a gain of 44 per cent. instead of a loss of 20, for the price in this country has, through all the fluctuations in the English market, remained nearly stationary, the cotton markets of the North Western Provinces depending chiefly on the China and home trade.

21. In former letters of the dates noted in the margin, reporting on the first year's operations, I classified the average cost of each pound, from its first purchase in Rajpootana to the delivery at Liverpool, and the total cost, *exclusive* of the charges at Liverpool, was 4 $\frac{3}{10}$ d. per lb. I have no further experience, except as to the total cost, which is nearly the same, being 4 $\frac{3}{10}$ d. per lb., *inclusive* of the Liverpool charges, which were 10 l. 6 s. 3 d., or about $\frac{1}{12}$ of a penny. I am still of opinion that this cost can be materially reduced, particularly in the charges for cleaning and screwing, and with reference to cotton purchased in Rajpootana, in the charges for transport and custom duties.

22. English capitalists should not themselves attempt the culture of cotton, but buy it on the spot unseeded, as far as possible, purchasing only the best sorts, clean it carefully, pack it and despatch to the port for shipment to England. By culture the capitalists cause balances, which not even the experience of Mr. Bell could avoid.

23. The objection made to the cotton in England was the shortness of the staple; the colour, condition and other qualities were all good; it was solely on account of this defect, which it was supposed could not be remedied, that the Honourable Court decided that the experiment should be closed.

24. It has been said, and there is, I should fancy, but little doubt of the fact, that machinery could be made to suit any length of staple, were it equal, and the quantity abundant. This grand, if not sole objection, is, therefore, entitled to little weight, and would probably never have been advanced had the trade been more flourishing than it was in 1848.

I have, &c.
(signed) C. Allen, Civil Service.
Calcutta, 14 March 1851.

From H. H. Bell, Esq., to C. Allen, Esq., Civil Service, Futtighur.

Sir,

In conformity with your desire, I have the honour to place before you a statement of the account arising from the transfer to me of the operations previously conducted, as the cotton experiment of the North Western Provinces.

These papers speak for themselves, and call for few observations. It may, however, be desirable to advert to the few articles, partially written back, for the balance transferred of the year 1846-47. The amount stated as irrecoverable balances, arose from the death of the parties insolvent, though at the time not known or suspected to be so, and when that which was assumed to be an existency was found not to be so, it does not seem unfair that the amount should be written back. In the same way it was assumed that the cotton seed to be distributed amongst the puttahdars would yield a certain amount. As the estimate was not reached, it seems but reasonable to expect that the excess credited should be returned. The bags, taut and other materials connected with the experiment were only reasonably valued. Had the experiment been maintained in use, they were worth the money, but when the operation was relinquished their value in exchange was widely different.

My expressed estimation of the value of the assets was, that they would produce more than their cost, and I distinctly stated that my ability to provide adequate funds for the transfer without trenching on resources applied to my more immediate pursuit by the withdrawal of its requisite capital was contingent on the realization of the property transferred. This has failed to suffice for the payment of the obligations I incurred, and I shall, on the 31st December next ensuing, have paid

	Rs. 13,962	6	3
more than I have received, which, with the actual balance of	-	-	-
	23,589	10	3

will, on the whole, cause me a loss not less than

	-	-	-
	37,552	-	6

against which there only stands the possible realization from the uncollected plant-balances, of which I am encouraged to hope that 10,000 may be got in in two years, although I fear that much must be recoverable from legal measures, which hitherto I have eschewed; if so fortunate, my loss will be reduced to Rs. 27,552. 0. 6.

It is but just to myself and the unfortunate bakeedars to state, that the existing balances arise from no neglect or want of effort on our parts. The past season, after the relinquishment of the cotton experiment, I had a cultivation of 10,000 beegas. In many of the villages there was a total failure; in others, the partial return was absorbed by the Government revenue, and I believe I might say that in most cases the return was quite inadequate to the rent of the land. In that year we got in 5,677. l., when an average crop would have sufficed to liquidate the whole balance. Subsequently, seeing the impossibility of effectually watching the crops when necessity pressed on the ryot, I resorted to indigo, as being scarcely liable to be clandestinely carried off. The cultivation has, in the last two years, suffered to a degree beyond my experience in the last 25 years; otherwise, excepting absolutely irrecoverable balance, nearly all would have been got in, as I trust will be the result in the two next seasons.

Under these circumstances, and adverting to the labour and anxiety that have attended

I.

Bengal and
North Western
Provinces.* A clerical error for
Rs. 24,589. 10. 3.,
signed C. Allen.

me in the transaction, as well as my motive for the arrangement which created my personal liability, I trust the Government will not object to my confident expectation of being permitted to pay the balance of credit, Rs. 23,589. 10. 3,* in two years, in nearly equal instalments; viz., 12,000 rupees on the 31st December 1851, and Rs. 11,589. 10. 3. on the 31st December 1852, thus terminating this adventure, which circumstances beyond control have rendered unfortunate. There may have been errors in the management inseparable from an undertaking entirely novel, but these alone would never have produced materially unfavourable results. The great commercial crisis in England, and the consequent reduction of the price of cotton of all descriptions, injurious as it was, did not affect the principle of the operation, and had not disturbances arisen in China it would have wound up with little loss, and positive advantage to the general trade. We are rapidly disseminating the superior for the inferior qualities of Desea cotton, and we had admittedly attained, or are attaining, one of the great desiderata, by replacing with well-cleaned cotton the foul and dirty description usually shipped, almost as much objected to on this account as for shortness of staple.

Even in this latter point, of which I admit the difficulty, because beyond control, it will be seen, I hope, when a small shipment I have made to Liverpool is reported on, that we were progressing. A hasty and intemperate expression put a bar to our proceedings, I think, to be regretted, for I still retain my first opinion that the measure I presumed to press on the attention of the Honourable the Lieutenant-governor was desirable, and not underserving the support his liberality conceded.

Agra, 5 November 1850.

I have, &c.
(signed) *H. Bell.*

No. 63.

COTTON EXPERIMENT under Supervision of *C. Allen, Esq.*

		Cr.	Rs. a. p.	
1847:		By Balance of Account of 1846-47, as made up and rendered on 7 September 1849, including sundry estimated existences to be carried to new year of experiment	33,674	4 8
July	- -	„ Treasury Drafts, Accounts of Advances, No. 1	20,000	- -
October	- 13	„ Treasury Drafts, Accounts of Advances, No. 2	30,000	- -
November	9	„ Treasury Drafts, Accounts of Advances, No. 3	20,000	- -
1848:				
February	27	„ Treasury Drafts, Accounts of Advances, No. 4	10,000	- -
			80,000	- -
		Co.'s Rs.	1,13,674	4 8
		Dr.		
		To sundries over-estimated in balance transferred from 1847		- -
		„ Balances absolutely lost by death of Suttahdars at this date	1,301	- -
		„ Estimated sale of seed realized less	600	- -
1848:		„ Old tauts, ropes, &c. for bagging, overvalued	200	- -
September	19	„ Shipment of cotton per " Palestine " to the address of Company's Liverpool agent	4,341	5 9
		„ Charges on ditto, paid to Mackillop & Co.	411	5 8
		„ Cotton boat lost near Ghazeepoor	7,162	8 -
November	9	„ Treasury receipt to C. Allen, Esq.	33,525	13 9
1849:				
February	19	„ ditto ditto	2,562	6 6
July	31	„ ditto ditto	14,605	4 3
		„ Sundry charges connected with, but distinct, as matter of account, from cotton experiment	935	15 6
		„ My engagements, payable first week, 1/7, December 1850	12,438	15 -
		„ My engagements, payable first week, due on 31st December 1850	11,000	- -
		„ Balance of this account	24,589	10 3
		Co.'s Rs.	1,13,674	4 8

(E. E.)

Agra, 4 November 1850.

(signed) *H. H. Bell.*

NOTE of sundry Disbursements, distinct from Cotton Experiment Account, incurred from August 1848 to October 1850.

I.
Bengal and
North Western
Provinces.

WAGES ACCOUNT:	Rs. a. p.	Rs. a. p.	No. 64.
Paid sepoy in charge of cotton-gin and press-house across the river, at 3/8 per month, from 1st October 1848 to 31st October 1850 - - - - -	87 8 -		
Paid amount of wages to Golab Khan Mistry, sent up to Julundur in charge of cotton-gin to Dr. Sill to Indore -	35 - -		
Paid to Ram Sing and Dildar Khan, sepoys of old establishment, on their return from Calcutta, and discharge in 1848 - - - - -	46 - -		
Paid Issunchunder Baboo, in charge of Caster House godown, at 5 rupees per month, in January 1849, 35; in January 1850, 70 - - - - -	105 - -	273 8 -	
EXPENSES connected with Mr. Mather's Machinery:			
Paid Mr. Mackenzie for erecting buildings, putting up machinery, &c., for trial of saw machine - - - - -	172 14 3		
Paid to Ingol Kishen, for adding to length of lathe, thatching, and sundry small repairs - - - - -	36 12 -	209 10 3	
Cartage, wages of coolies on many occasions, cost of leather, and wages of mochee preparing leather straps, and various small items connected with trials of Mr. Mather's and other machinery - - - - -		29 3 3	
Charges on account of threshers and churkas, altering and remodelling the same, including 78 rupees paid to Mr. Harcourt to assist him in the construction of his model - - - - -		323 10 -	
Cash paid to Doity Chund Mistry, by order of Lieutenant-governor -		100 - -	
	Rs.	935 15 6	

(E. E.)

Agra, 4 November 1850.

(signed) H. H. Bell.

(No. 65.)

REALIZATION of Plant Balances of COTTON EXPERIMENT.

Kotees.	Balance of 1847.	Collection of 1848.	Collection of 1849.	Collection of 1850.	Total Collection.	Unrealized.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Ferozabad - -	4,409 4 3	974 8 6	166 6 9	124 13 9	1,265 13 -	3,143 7 3
Powain - -	2,541 11 6	376 4 9	92 13 6	168 7 3	637 9 6	1,904 3 -
Kotky - -	3,508 10 3	466 15 3	783 7 -	377 11 6	1,628 1 9	1,910 8 6
Omurghur - -	3,184 12 6	1,276 1 6	323 10 9	119 - 9	1,718 13 -	1,465 9 9
Mursanah - -	1,548 12 6	180 14 -	393 5 6	2 2 3	575 8 9	972 6 9
Sookhny - -	264 - 9	58 5 9	3 12 9	32 14 -	95 - 6	169 - 9
Furriah - -	1,960 14 -	598 9 6	218 9 9	4 13 3	821 15 6	1,138 14 6
Jelaysur - -	2,215 15 9	655 13 -	121 2 9	- - -	776 15 9	1,439 - -
Omssur - -	1,304 12 -	816 15 6	135 13 6	8 1 9	960 14 9	343 13 3
Nizampur - -	276 6 -	37 6 3	11 - -	- - -	48 4 9	230 1 9
Sundrus - -	40 3 6	9 6 -	19 - 3	- - -	28 6 3	11 13 3
Shekoabad - -	2,141 12 9	215 15 -	786 3 -	66 - -	1,073 10 9	1,073 10 9
Rs.	23,428 15 -	5,667 1 -	3,055 5 6	903 15 6	9,626 6 -	13,802 9 -

(E. E.)

Agra, 31 October 1850.

(signed) H. H. Bell.

I.
Bengal and
North Western
Provinces.

(No. 34.)

Agra Magazine Office, 12 July 1848.

RECEIVED into the Agra Magazine, from *C. Allen*, Esq., Superintendent Cotton
Experiment.

No. 66.

Scales, board	-	-	-	-	-	-	-	-	2
Ditto, beam, large	-	-	-	-	-	-	-	-	1
Ditto, chain, pair	-	-	-	-	-	-	-	-	1
Triangle for scales, large	-	-	-	-	-	-	-	-	1
Weights, brass, 8 dozen	-	-	-	-	-	-	-	-	1
Ditto, ditto, 4	-	-	-	-	-	-	-	-	1
Ditto, iron, 56 lbs.	-	-	-	-	-	-	-	-	4
Ditto, ditto, 28	-	-	-	-	-	-	-	-	1
Ditto, ditto, 14	-	-	-	-	-	-	-	-	1
Ditto, ditto, 7	-	-	-	-	-	-	-	-	1
Ditto, ditto, 4	-	-	-	-	-	-	-	-	1
Ditto, ditto, 2	-	-	-	-	-	-	-	-	1
Ditto, ditto, 1	-	-	-	-	-	-	-	-	1

N.B.—The state of the above will be ascertained hereafter.

(signed) *C. W. Timbrill*, 1st Lieut.,
Offg. Commissary of Ordnance.

(No. 67.)

(Copy.)

ACCOUNT SALES of 102 Bales of Cotton shipped by Messrs. *Mackillop, Stewart & Co.*, per "Palestine," at Calcutta,
sold by Order and for Account of the Honourable East India Company.

1849:			£.	s.	d.	£.	s.	d.
17 February	-	Perkins, Smith & Mullins,	102 wg. net 29,906 lbs., at 3½d. per lb.	436	2	7		
28 February	-	Thomas Heery (pickings)	- - - 15 lbs., at 1 d. „	-	1	3		
		102 Bs.	29,921 lbs.				436	3 10
		CHARGES.						
		Messrs. Mackillop, Stewart & Co., draft for premium of insurance		11	5	-		
		Freight on 102 bales, at 2 l. 10 s. per ton of five bales		51	-	-		
		Albert Dock charges:						
		Dock dues, 1 l. 5 s. 6 d.; town dues, 17 s.; entry, 1 s. 6 d.		2	4	-		
		Quay delivery rate on 282 cwt. 3 qrs. 8 lbs. at ½ d. per cwt.		-	11	9		
		Piling on the quay - - - ditto - - - at ¼ d. per cwt.,						
		5 s. 11 d.; opening for custom, 2 s.		-	7	11		
		Cartage, 19 s. 1 d.; portorage, receiving and delivering, 1 l. 5 s.		2	4	1		
		Fire insurance on 450 l., at 2 s. 6 d. % (one month)		-	11	4		
		Interest and bank commission on charges		-	15	8		
		Rent, 1 l. 5 s. 6 d.; abatement, 7 d.		1	6	1		
		Brokerage, £. ½ %		2	3	7		
		Bank of England commission remitting net proceeds, at 6 d.		-	2	-		
							72	11 5
		Net Proceeds, Cash, 2d June 1849	- - - £.				363	12 5

S. D. B. H. 435/6.

Liverpool, }
3 March 1849. }

(signed) *W. Rathbone*,
Agent to the Honourable East India Company.

(E. E.)

(True copy.)

(signed) *C. Allen*.

MEMORANDUM.

(No. 6659.)—(No. 68.)

MEMORANDUM.

Accountant's Office, North Western Provinces, 31 March 1851.

The account rendered by H. H. Bell, Esq., under date 4th November last, to Charles Allen, Esq., and by the latter submitted to Government with his letter, dated 14th instant, regarding cotton experiments, having been sent to this office for examination, the same has been carefully looked through, and the result is stated below.

MR. BELL'S ACCOUNT.				Rs.	a.	p.	Rs.	a.	p.	ACCOUNTANT'S REMARKS.
Balance of account of 1846-47 -				-	-	-	33,674	4	8	- - To this amount, which is correct, should be added Rs. 255. 1. 10., the value of stores issued to C. Allen, Esq., under Government orders, dated 20th September 1848.
Advance in July 1847 -				20,000	-	-				
Ditto, in October 1847 -				30,000	-	-				
Ditto, in November 1847 -				20,000	-	-				
Ditto, in February 1848 -				10,000	-	-	80,000	-	-	
The above advances are thus accounted for by Mr. Bell:—							1,13,674	4	8	- - Mr. Allen recommends these three items being debited to the experiment.—Vide para. 9 of his letter.
To sundries over estimated				1,301	-	-				
Estimated sale of seeds, less realised -				600	-	-	(A.)			
Old taut, ropes, &c., overvalued -				200	-	-	2,101	-	-	
							(B.)			
Shipment of cotton per Palestine				4,341	5	9	4,752	11	5	- - Mr. Allen refers to these two items in his 5th and 6th paras., and states that the cotton has realised a net sum of £. 363. 12. 6., and the money paid into the Home Treasury in June 1849; but whether the amount has been sent out by the Honourable Court of Directors cannot be traced at the Secretariat office. The loss on this shipment will have to be written off under orders of Government, when it is known what the Honourable Court has received.
Charges on ditto -				411	5	8				
							(C.)			
Cotton boat burnt near Ghazee-poor -				-	-	-	7,162	8	-	
							(D.)			
Treasury receipt to C. Allen, Esq.				33,525	13	9				- - This is the cost of 716 ½ maunds of cotton lost by the accident, of which 271 rupees realised by sale by magistrate of Ghazee-poor has been credited in the Agra collector's account for August 1849; the remainder, Rs. 6,891. 8., will have to be written off under Government orders. Mr. Allen refers to this item in the 7th para. of his letter.
Ditto - ditto -				2,562	6	6	(D.)			
Ditto - ditto -				14,605	4	3	50,693	8	6	
							(E.)			
Sundry charges -				-	-	-	935	15	6	- - The amounts paid into the public treasuries have been traced as follows:— To credit of cotton experiment at General Treasury, in November 1848 - Rs. 33,525 13 9 Ditto, in February 1849 - 2,562 6 6 Ditto, in July - 1849 - 14,605 4 3 <u>Rs. 50,693 8 6</u>
Engagements payable 1st week of December 1850 -				12,438	15	-				- - Mr. Allen, in his 8th para., recommends this being charged to the experiment.
Engagements payable on 31st December 1850 -				11,000	-	-	(F.)			
							23,438	15	-	- - These sums have been paid to credit of cotton experiment, as follows:— Into General Treasury, in } Rs. 19,752 7 9 January 1850 - - - - - } Into Cawnpore Treasury, in } 3,686 7 3 January 1850 - - - - - } <u>Rs. 23,438 15 -</u>
							(G.)			
Balance still due from Mr. Bell or Mr. Allen -				-	-	-	24,589	10	3	
							Rs.	1,13,674	4	

I.
Bengal and
North Western
Provinces.

No. 69.

The following letter is addressed to C. Allen, Esq. :—

(No. 1359 of 1851.)

From *J. Thornton*, Esq., Secretary to the Government of the North Western Provinces,
to *C. Allen*, Esq.

Sir,

I AM desired to acknowledge the receipt of your letter, dated 14th March last, forwarding the accounts of the cotton experiment for the year 1847-48.

2. The papers having been examined in the Accountant's office, the result is shown in the annexed memorandum, dated March 31st, 1851, with reference to which, the accompanying orders are passed :—

3. The three items marked (A.)* are, as you recommend, debited to the experiment.

4. The item marked (B.)† will be debited to the experiment and adjusted with the Home Government, in the same manner as other similar items.

5. The cost of the cotton lost by the burning of a boat in the Ghazeepeer district, it has been already determined,‡ is to be borne by the Government. The sum of 271 rupees realised by the sale of the damaged cotton, will be credited to the experiment, and the balance, Rs. 6,891. 8., debited to the same head.

6. The sums (D.)§ and (F.)|| have been credited in the public Treasury.

7. The charge (E.)¶ is sanctioned, and will be debited against the experiment, as also the item (A.) Rs. 255. 1. 10. for stores from the magazine, for such portion of it as may ultimately be found due.

8. The Lieutenant-governor accepts your recommendation, that the Balance (G.)** of Rs. 24,589. 10. 3. still due from Mr. Bell, shall be received from him in two equal instalments, on the 31st December 1851, and the same date of 1852.

9. The Lieutenant-governor desires me to thank you for your services in adjusting this account, and begs you will express to Mr. Bell the regret which is experienced at the loss which he appears to have sustained in this public-spirited effort.

10. The Lieutenant-governor cannot renounce all hope that benefit will yet result from these exertions, and it will give him great satisfaction if they prove the means of ultimately opening out a field of mercantile enterprise to Mr. Bell himself.

I have, &c.

(signed) *J. Thornton*,

Secretary to the Government of the N. W. P.

Head quarters, 7th April 1851.

Office of Account informed through the Financial Department N. W. P.

(True extracts.)

(signed) W. Blackburn, Reporter of Proceedings.

EXTRACT

* (A) To sundries overestimated	-	-	-	-	-	Rs. 1,301	-	-
Estimated sale of seed, less realised	-	-	-	-	-	600	-	-
Old tant, ropes, &c. overvalued	-	-	-	-	-	200	-	-
						Rs. 2,101	-	-

+ (B) Shipment of Cotton per "Palestine"	-	-	-	-	-	Rs. 4,341	5	9
Charges on ditto	-	-	-	-	-	411	5	8
						Rs. 4,752	11	5

† Letter from Mr. H. H. Bell to Officiating Secretary to the Government N. W. P. dated 14th August 1848.

Government letter to Accountant N. W. P., dated 7th August 1849, No. 2570.

(D) Treasury Receipt to C. Allen, Esq.	-	-	-	-	-	Rs. 33,525	13	9
Ditto ditto	-	-	-	-	-	2,562	6	6
Ditto ditto	-	-	-	-	-	14,605	4	3
						Rs. 50,693	8	6

(F) Engagements payable 1st week of December 1850	-	Rs. 12,438	15	-
Ditto on 31st December 1850	-	11,000	-	-
		Rs. 23,438	15	-

¶ (E) Sundry charges	-	-	-	-	-	Rs. 935	15	6
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** (G) Balance still due from Mr. Bell or Mr. Allen	-	-	-	-	-	Rs. 24,589	10	3
---	---	---	---	---	---	------------	----	---

EXTRACT from Revenue Narrative, No. 1, dated the 5th April 1852.

I.
Bengal and
North Western
Provinces.

COTTON.

62d. WITH reference to orders, dated 11th April last, the officiating Accountant having submitted correspondence relative to the demand of Government against the estate of Mr. H. H. Bell, the Lieutenant-governor approved of the orders issued by him with regard to registering the amount due by the deceased, and requested to be kept informed of the result. His Honor observed that the executors should have every facility they might desire for examining the accounts, and satisfying themselves of the nature of the transaction.

Collection, No. 4.
Demand against the estate of the late Mr. H. H. Bell.
Para. 43 to 49, Rev. Nar., No. 3 of 1851.
Rev. Pro. Oct. 1851, No. 247 to 250.
Rev. Pro. Dec. 1851, Nos. 228 & 229.

EXTRACT from the Proceedings of the Honourable the Lieutenant-Governor of the North Western Provinces, in the Revenue Department, dated 20 October 1851.

(No. 2908 of 1851-52).

No. 247.

From *R. Money*, Esq., Officiating Accountant North Western Provinces, to *J. Thornton*, Esq., Secretary to Government North Western Provinces, Financial Department, Agra.

Sir,

WITH reference to Mr. Officiating Assistant Secretary Sherer's docket, No. 918, dated 11th April last, transmitting for my guidance copy of a letter addressed to Mr. C. Allen, of the civil service at Calcutta, bearing date 7th idem, regarding the cotton experiment accounts, I have the honour to transmit for the information of the Honourable the Lieutenant-governor a copy of the correspondence as per margin.*

I have, &c.
(signed) *R. Money*,
Officiating Accountant N. W. P.

Accountant's Office, N. W. P., Agra,
26 September 1851.

(No. 444).

No. 248.

From *M. R. Gubbins*, Esq., Collector of Agra, to *R. Money*, Esq., Officiating Accountant North Western Provinces, Agra.

Sir,

WITH reference to the 4th paragraph of your letter of the 19th July last, No. 1450, and the Government orders of 7th April enclosed therein, regarding the sum of Rs. 24,589. 10. due by Mr. H. H. Bell to Government on account of the late "cotton experiment," I have the honour to report that Mr. Bell died on the 22d instant, and that his estate is in the hands of his executors, Mr. F. R. Neilson and Mistr Gobindpershaud. I beg therefore to know whether it is necessary for me to take any and what measures for the recovery of the Government demand, the first instalment of which will fall due on the 31st December 1851.

I have, &c.
(signed) *M. R. Gubbins*, Collector.

Zillah Agra, Collector's Office,
24 September 1851.

(Copy.)

(No. 2907.)

From *R. Money*, Esq., Officiating Accountant North Western Provinces, to *M. R. Gubbins*, Esq., Collector of Agra.

Sir,

IN reply to your letter, No. 444, dated 24th instant, and with reference to the residue of the advance which was made by Mr. C. Allen for cotton, amounting to Rs. 24,589. 10., which

* Letter from Collector of Agra, dated 24th instant; and my reply, dated 26th idem.

I.
Bengal and
North Western
Provinces.

which is in your inefficient balance report, and is proposed to be adjusted by Mr. H. H. Bell in December 1851, and in December 1852, I beg that you will, in consequence of the recent demise of the last mentioned gentleman, put yourself in communication with the executors to his estate, for the purpose of registering this demand of Government, with a view to its adjustment in due course, and advise me of the result.

Accountant's Office, N. W. P., Agra, 26 September 1851. I have, &c.
(signed) *R. Money*,
Officiating Accountant, N. W. P.

(True copy.)
(signed) *R. Gordon*,
Uncovenanted Assistant to Accountant, North Western Provinces.

The following letters are written :

No. 249:

(No. 3746 of 1851.)

From *J. Thornton*, Esq., Secretary to the Government, North Western Provinces,
to *R. Money*, Esq., Officiating Accountant, N. W. P.

Sir,

I AM directed to acknowledge receipt of your letter, dated 26th ultimo, No. 2908, and in reply to inform you that the Honourable the Lieutenant-governor approves of the orders issued by you with regard to the amount due to Government by the late Mr. H. H. Bell, on account of the late cotton experiment, and requests to be kept informed of the result.

His Honor desires me to observe, that the executors should have every facility they may desire for examining the accounts and satisfying themselves of the nature of the transaction.

Simla, 20 October 1851. I am, &c.
(signed) *J. Thornton*,
Secretary to Government, N. W. P.

No. 250.

(No. 3747 of 1851.)

From *J. Thornton*, Esq., Secretary to the Government, North Western Provinces,
to *C. Allen*, Esq., C. S., Calcutta.

Sir,

WITH reference to letter to your address, dated 7th April last, I am desired by the Honourable the Lieutenant-governor to forward copies of the correspondence noted in the margin* regarding the amount due to Government by the late Mr. H. H. Bell, on account of the cotton experiment.

Simla, 20 October 1851. I am, &c.
(signed) *J. Thornton*,
Secretary to Government, N. W. P.

EXTRACT from the Proceedings of the Honourable the Lieutenant-Governor of the North Western Provinces, in the Revenue Department; dated 24 December 1851.

No. 228.

(No. 3622.)

From *R. Money*, Esq., Officiating Accountant, North Western Provinces, to
J. Thornton, Esq., Secretary to the Government, Revenue Department.

Sir,

WITH reference to your letter, No. 3746, dated 20th ultimo, I have the honour to transmit, for the information of the Honourable the Lieutenant-governor, copy of the correspondence as per margin,* on the subject of the demand which exists in the Agra collector's inefficient balance against the estate of the late H. H. Bell, and await further instructions from you.

Accountant's Office, N. W. P., Agra, 2 December 1851. I have, &c.
(signed) *R. Money*,
Officiating Accountant, N. W. P.

From

* From Officiating Accountant, dated 26th September, No. 2908, with Enclosure.
To - ditto - of this date.

† Letter addressed to Collector of Agra, No. 3157, dated 21st October 1851.

Reply from Collector, dated 26th November 1851, with copy of Letter from Executor to the estate, dated 20th November 1851 (Land Revenue, No. 3840).

(Copy.)

(No. 3159.)

From *R. Money*, Esq., Officiating Accountant, North Western Provinces,
to *M. R. Gubbins*, Esq., Collector of Agra.

Sir,

With reference to my letter, No. 2907, dated 26th ultimo, I beg that you will, whenever the executors to the estate of the late H. H. Bell may desire it, afford them every facility for examining the accounts connected with the demand of Government, and satisfying themselves of the nature of the transaction.

You will be good enough to inform me (after communicating with the executor) of the probable time of adjustment of the demand.

Accountant's Office, N. W. P.,
Agra, 21 October 1851.

I have, &c.
(signed) *R. Money*,
Officiating Accountant, N. W. P.

Forwarded, for the information of the Accountant, North Western Provinces, by

Agra Collector's Office,
26 November 1851.

(signed) *M. R. Gubbins*,
Collector.

(No. 602.)

From *F. R. Neilson*, Esq., Executor, to *M. R. Gubbins*, Esq., Collector, Agra.

Sir,

Agra, 24 November 1851.

I HAVE the honour to acknowledge your letter of the 20th instant, annexing copy of a letter which you had received from the Accountant, North Western Provinces, regarding the claim made by Government upon the estate of the late Mr. Bell, and desiring information as to the probable time of adjustment.

Owing to delay in Calcutta caused by holidays, I have only to-day received probate from the Supreme Court, and I am unable at present to give you the information you desire; it is my intention to look into the claim made by Government, which I understand is for losses in cotton experiments which the deceased conducted on behalf of Government, and which he indiscreetly offered to take upon himself, although in no way liable. After an inspection of the accounts, it is probable that the circumstances may warrant my applying to Government to remit the whole or a portion of the claim: in the meantime it has been registered against the estate; the Government will of course merely rank as a general creditor, the estate not being solvent.

I have, &c.
(signed) *T. R. Neilson*, Executor.

(True copy.)

(signed) *M. R. Gubbins*, Collector.

(True copies.)

(signed) *R. Gordon*,

Uncovenanted Assistant to Accountant, N. W. P.

No orders at present necessary.

(True extracts.)

(signed) *W. Blackburn*, Reporter of Proceedings.

EXTRACT from Revenue Narrative, No. 2, dated 27 September 1854.

COTTON EXPERIMENT.

Para. 73. THE Board having been requested, with reference to former correspondence regarding the Government demand against the estate of the late Mr. H. H. Bell, to consider and report whether there was any adequate ground for directing an appearance in behalf of Government in the Sudder Court, in support of the application for a review of judgment in the case of *Choteh Loll v. F. R. Neilson*, executor of the deceased; they stated in reply their opinions that no good would result from the Government appearing in the case, as it was not a party to the original suit, and that the court would probably object to such interference if attempted, which was communicated to the Accountant for his information.

Collection, No. 72.
Demand of Government against the estate of the late Mr. H. H. Bell.
Para. 42, Narr.
No. 1 of 1854.
Rev. Pro., March 1854, No. 331 to 337.

I.
Bengal and
North Western
Provinces.

EXTRACT from the Proceedings of the Honourable the Lieutenant-Governor of the North Western Provinces, in the Revenue Department; dated 27 March 1854.

No. 331.

(No. 7807 of 1853-54.)

From *C. Grant*, Esq., Accountant, North Western Provinces, to *W. Muir*, Esq., Secretary to the Government, North Western Provinces, Revenue Department, Agra.

Sir,

WITH reference to the 2d paragraph of your letter, No. 4697, dated 20th ultimo, I have the honour to transmit, for the information of the Honourable the Lieutenant-governor, copy of my letter to the address of the Collector of Agra, No. 7033, dated 22d ultimo, and of that officer's reply, dated 9th instant, together with the original documents which accompanied it, and to beg that the latter may be returned, when no longer required, for re-transmission to that officer.

I have, &c.
(signed) *C. Grant*,
Accountant, N. W. P.

Accountant's Office, N. W. P., Agra,
14 January 1854.

(Copies.)

No. 332.

(No. 7033 of 1853.)

From *C. Grant*, Esq., Accountant, North Western Provinces, to *M. R. Gubbins*, Esq., Collector of Agra.

Sir,

I BEG to transmit for your information copy of a letter addressed by the Secretary to the Sudder Board of Revenue to the Secretary to Government, No. 580, dated 29th ultimo, relative to the issue of the suit of Mackillop, Stewart & Co. v. Mr. H. H. Bell's estate, which has been forwarded to me by Government, and to request that you will be good enough to ascertain from the executor to the estate, and inform me when a dividend may be expected from the estate towards the liquidation of the Government demand in your inefficient balance, that I may intimate the same to the Honourable the Lieutenant-governor.

I have, &c.
(signed) *C. Grant*,
Accountant, N. W. P.

Accountant's Office, N. W. P., Agra,
22 December 1853.

(No. 843 of 1854.)

From *J. A. Brown*, Esq., Deputy Collector, Agra, to *C. Grant*, Esq., Accountant, North Western Provinces, Agra.

Sir,

WITH reference to your letter of the 22d ultimo, No. 7033, I have the honour to transmit copy of a letter from the attorneys of the executor of Mr. H. H. Bell, and enclosures in original, regarding the Government demand against the estate of the deceased, and request the favour of your returning the originals when done with.

I have, &c.
(signed) *T. A. Brown*,
Deputy Collector.

Agra Collector's Office,
9 January 1854.

On the 30th January last, the following letter was written to the Secretary Sudder Board of Revenue, North Western Provinces:

(No. 472 of 1854.)

From *C. P. Carmichael*, Esq., Officiating Assistant Secretary to Government, North Western Provinces, to *G. J. Christian*, Esq., Secretary to the Sudder Board of Revenue, North Western Provinces.

Sir,

WITH reference to your letter, No. 580, dated the 29th November last, regarding the demand of Government against the estate of the late Mr. H. H. Bell, I am desired by the Honourable

Honourable the Lieutenant-governor to forward the accompanying original letter, No. 7807, from the Accountant, N. W. P., dated the 14th instant, with its enclosures, in order that the Board may consider and report whether there is any adequate ground for directing an appearance on behalf of Government in the Sudder Court, in support of the application for review referred to in the letter from Messrs. Molloy & Mackintosh, to the address of Mr. Brown, Deputy Collector of Agra, of the 4th instant.

2. You are requested to return the original enclosures with your reply.

I am, &c.
(signed) C. P. Carmichael,
Offg. Assist. Secy. to Govt. N. W. P.

Agra, 30 January 1854.

(No. 113 of 1854.)

From C. P. Carmichael, Esq., Officiating Secretary, Sudder Board of Revenue, North Western Provinces, Agra, to W. Muir, Esq., Secretary to the Government of the North Western Provinces.

No. 336.

Sir,

I AM desired by the Sudder Board of Revenue, N. W. P., to acknowledge the receipt of Government order, No. 472, dated the 30th January 1854, calling for their opinion, whether there was any adequate ground for directing an appearance on behalf of Government in the Sudder Court in support of the application for review of judgment in the case of Chotelol v. F. R. Neilson, executor of H. H. Bell, deceased, and in reply, to intimate that they are of opinion that no good will result from the Government appearing in the case, as it was not a party to the original suit, and the court will probably object to such interference, if attempted.

Revenue.
Present,
D. B. Morrieson,
Esquire, Senior
Member.

2. The Government vakeel, however, has been directed to attend at the hearing of the appeal to afford his aid, if required, to the executor's application, and to report the result.

I have, &c.
(signed) C. P. Carmichael,
Offg. Secretary.

Sudder Board of Revenue, N. W. P., Agra,
21 February 1854.

The following letter is written to the Accountant, North Western Provinces:

(No. 1471 of 1854.)

From C. P. Carmichael, Esq., Officiating Assistant Secretary to Government, North Western Provinces, to C. Grant, Esq., Accountant, North Western Provinces, Agra.

No. 337.

Sir,

I AM directed to acknowledge the receipt of your letter, No. 7807, dated the 14th January last, with its enclosures, relative to the demand of Government against the estate of the late Mr. H. H. Bell, and in reply, to forward for your information the accompanying copy of correspondence with the Secretary Sudder Board of Revenue, on the subject.*

Revenue Depart-
ment.

2. The original enclosures of your letter are returned, copies being kept for record.

I am, &c.
(signed) C. P. Carmichael,
Assist. Secy. to Govt. N. W. P.

Agra, 27 March 1854.

EXTRACT Agra Revenue Narrative (North Western Provinces), dated
12 May (No. 2.) 1847.

COTTON EXPERIMENTS.

WITH reference to paragraphs 1 to 5 of the Honourable Court's despatch of the 7th August 1846, respecting cotton, the growth of the Jullundar Doab, the Governor-General having requested to be informed whether Dr. Sill's services were available for instituting inquiries on the subject, his Honor stated that Dr. Sill was attached to the 8th native infantry, and that he was not aware of any impediment to his employment in the manner proposed; that officer was accordingly appointed to the duty by his Lordship.

Rev. Pro., October
1846, No. 58 to 60.
No. 120.

EXTRACT

* Letter to Secretary Sudder Board, dated 30th January 1854, No. 472.

Letter from Secretary Sudder Board, dated 20th February 1854, No. 113.

1.
Bengal and
North Western
Provinces.

EXTRACT from the Proceedings of the Honourable the Lieutenant-Governor of the North Western Provinces, in the Revenue Department; dated 7 October 1846.

No. 58.

(No. 146.)

From *F. Currie*, Esq., Secretary to Government of India with the Governor-General, to *J. Thornton*, Esq., Secretary to Government, North Western Provinces.

Sir,

Revenue Department,
dated 7th August.

I AM directed to forward, for the information of his Honor the Lieutenant-governor, the enclosed copy of paragraphs 1 to 5 of a despatch from the Honourable the Court of Directors, relative to cotton the growth of the Jullundur Dooab.

2. The Governor-general desires to be informed whether Dr. Sill's services be available for employment in the manner suggested by the Honourable Court; and if not, if his Honor can nominate an officer qualified for the duty.

I have, &c.

(signed) *F. Currie*,

Simla, 22 September 1846.

Secy. to the Government of India
with the Governor-General.

No. 59.

Revenue Department.

Copy paragraphs which will form a number in the next list of packet to the Governor-General of India in Council.

Revenue Letter to
Madras, 8th Oc-
tober 1845, No. 20.
Revenue Letter to
Madras, 26th No-
vember 1845,
No. 24.

Para. 1. You will have learnt from our despatches, noted in the margin, that we have directed that cotton, to the extent of 5,000 or 6,000 bales, should, if practicable, be procured and forwarded to us, in order correctly and finally to test the value of East India saw-ginned cotton in the European market. We think this opportunity a favourable one for procuring from the Jullundur Dooab a portion of the cotton required to be sent to England; and you will adopt early measures for obtaining and transmitting to Liverpool cotton to the extent of one thousand (1,000) bales from this district, if procurable.

2. It is desirable that inquiries should be instituted regarding the cotton which is said to be produced in large quantities and of a superior quality in that portion of the Jullundur Dooab, which has recently been annexed to our territories; and, for this purpose, we authorise you to depute a competent person into that country. Dr. Sill, of your establishment, who had temporary charge of the American cotton planters on the death of Captain Bayles, might probably be employed with advantage on this occasion.

3. A bale of each description of the cotton, weighing about 3 cwt., should be, as speedily as practicable, transmitted to England, and reports obtained on the mode of cultivation in general practice, the means employed in cleaning and packing the cotton, whether by machinery or otherwise, with any further information regarding the cost and produce per acre, the extent and annual quantity of the crop in the several districts, and the price at which the article is sold in the nearest market.

4. By the reports we receive from you, we shall be guided as to the expediency or otherwise of sending a supply of saw gins and implements of husbandry, for the purpose of improving either the system of cultivation or the mode of cleaning the cotton in the Jullundur Dooab.

5. In transmitting the above information, you will also inform us to what extent you can supply machinery, should any be required to meet the object we have in view by the institution of these preliminary inquiries.

(A true copy.)

(signed)

J. D. Dickinson,

Deputy Secretary.

London, 7 August 1846.

(True copy.)

(signed) *F. Currie*,

Secretary to the Government of India with the Governor-General.

Reply.

(No. 4328.)

From *J. Thornton*, Esq., Secretary to the Government, North Western Provinces, Agra, to *F. Currie*, Esq., Secretary to the Government of India with the Governor-General, Home Department.

I.
Bengal and
North Western
Provinces.

No. 60.

Sir,

IN reply to your letter of the 22d ultimo, No. 146, transmitting copy of paragraphs 1 to 5, of a despatch from the Honourable the Court of Directors, dated 7th August last, relative to the employment of Dr. Sill to report upon the cotton grown in the Julundur Doab, I am directed to observe, that he is at present attached to the 8th Regiment Native Infantry at Agra, and that the Honourable the Lieutenant-governor is not aware of any impediment to his being employed in the proposed manner. His Honor is unable to point out any other properly qualified person whose services are available for this duty.

Revenue Department.

Agra, 7 October 1846.

I have, &c.
(signed) *J. Thornton*,
Secy. to the Govt. N. W. P.

EXTRACT from the Proceedings of the Honourable the Lieutenant-Governor of the North Western Provinces in the Revenue Department, dated 16 October 1846.

(No. 160.)

From *F. Currie*, Esq., Secretary to the Government of India with the Governor-General, to *J. Thornton*, Esq., Secretary to the Government of the North Western Provinces.

No. 120.

Sir,

WITH reference to my letter, dated the 22d September last, No. 146, I have the honour to inform you, that the Right honourable the Governor-general has been pleased to appoint Surgeon Henry Sill to the duty of examining and reporting on the cotton growing in the Julundur Doab.

Home Department

Simla, 7 October 1846.

I have, &c.
(signed) *F. Currie*,
Secy. to the Government of India
with the Governor-General.

EXTRACT from the Proceedings of the Honourable the Lieutenant-Governor of the North Western Provinces, in the Revenue Department, dated 9 December 1846.

(No. 191 of 1846.)

From *F. Currie*, Esq., Secretary to the Government of India with the Governor-General, to *J. Thornton*, Esq., Secretary to Government, North Western Provinces, Agra.

No. 30.

Sir,

I AM directed to forward for the information of his Honor the Lieutenant-Governor, the enclosed copy of a letter, dated the 14th instant, from Dr. Sill, and to intimate the Governor-general's wish that one of the American saw gins, accompanied by a native acquainted with its working, may if not inconvenient, be transferred from Agra into the Julundur Doab, there to be at Dr. Sill's disposal.

Home Department

Camp, Rajpoora,
19 November 1846.

I have, &c.
(signed) *F. Currie*,
Secretary to the Government of India
with the Governor-General.

I.
Bengal and
North Western
Provinces.

From Surgeon *Henry Sill* to *F. Currie*, Esq., the Secretary to the Government of India with the Governor-General.

Sir,

No. 31.

I HAVE the honour to request you will do me the favour to solicit the Right honourable the Governor-general to sanction the transfer of one of the American saw-gins from Agra to the Jullundur Dooab. If one of the 60 saw gins could be made available, I should prefer it to one of 20; and it might in the first place be addressed to the care of the Deputy Commissary of Ordnance at Phillour, until in consultation with Mr. Vansittart I am enabled to decide in what locality it may with the greatest advantage be employed.

It is obvious, that the cost of transmission would be much less than the cost of conveyance to Agra or Bombay of the quantity of seed cotton required for even four bales of 300 lbs., and to one of these places the kupass must necessarily be sent, as it is the object of the Court of Directors to test the value of saw-ginned cotton.

Mr. Vansittart requests me to add, that he coincides with me in the proposal I have submitted, and irrespective of the present inquiry under the orders of the Court of Directors, is anxious to have one of the gins in the Dooab, with a view to inducing the natives generally to devote more attention to the mode of cleaning their cotton.

Sultanpoor, Jullundur Dooab,
14 November 1846.

I have, &c.
(signed) *Henry Sill*.

P. S.—I would suggest that a native who has been accustomed to the working of the gins should be directed to accompany it.

(True copy.)

(signed) W. Edwards, Under Secy. to the Govt of India
with the Governor-General.

The following letter is written :

(No. 5181.)

No. 32.

From *A. Shakespear*, Esq. Assistant to the Secretary to the Government, North Western Provinces, Agra, to *C. Allen*, Esq., Officiating Accountant, North Western Provinces, Agra.

Sir,

I AM directed by the Honourable the Lieutenant-governor to transmit copy of a letter from the Secretary to the Government of India with the Governor-general, dated 19th ultimo, No. 191, with its enclosure, and to request you will forward one of the American saw gins to the Julundur Dooab as therein desired.

I have, &c.
(signed) *A. Shakespear*,
Agra, 9 December 1846. Assistant to the Secy. to the Govt. N. W. P.

(True extracts.)

(signed) W. Blackburn, Reporter of Proceedings.

(No. 11.)

Home Department, Simla, 14 August 1847.

To the Honourable the Court of Directors of the Honourable East India Company.

Honourable Sirs,

WITH reference to your Honourable Court's despatch in the Revenue Department, No. 9, dated 12th August 1846, I have the honour to submit a report * from Mr. J. Lawrence, with its enclosures, respecting the cultivation of cotton in the Julundur Dooab.

2. From a perusal of these papers, your Honourable Court will be satisfied that the Dooab offers no peculiar advantages for cotton cultivation over those possessed by several districts in the North Western Provinces; and though cotton of a good quality is grown in some parts of the Dooab, and its cultivation could no doubt be extended, yet as nearly the whole country is represented

to

* From Commissioner and Superintendent Trans-Sutlej States, No. 49, dated 19th March 1847; from Commissioner and Superintendent Trans-Sutlej States, No. 71, dated 26th April 1847.

to be covered already with fine crops of wheat, barley and sugar-cane, it does not seem advisable for the Government to exert any interference, or go to any expense to encourage its cultivation, for the self interest of the agriculturists will induce them to devote greater capital and labour to that crop, whenever it offers promises of better remuneration.

3. Under these circumstances, as the purposes of Dr. Sill's deputation have been fulfilled, I have placed his services again at the disposal of the Commander-in-Chief.

4. I regret to find that the local officers have not fully acted up to the wishes of your Honourable Court, in sending 100 bales for examination to Liverpool, but should any desire be now expressed to that effect, after inspection of the accompanying samples, the Commissioner will have no difficulty in furnishing that supply.

Simla, 14 August 1847.

I have, &c.
(signed) *Hardinge.*

(No. 49 of 1847.)

From *John Lawrence*, Esq., Commissioner and Superintendent, Trans-Sutlej States, to *H. M. Elliot*, Esq., Officiating Secretary to the Government of India with the Governor-General.

Sir,

WITH reference to Mr. Secretary Currie's letter, No. 147, dated 22d September last, to the agent, Governor-general, North Western frontier, forwarding an extract of a despatch from the Honourable the Court of Directors regarding the cultivation of cotton in the Julundur Doab, I have the honour to submit correspondence, as per margin,* being copies of the reports of the officers in charge of the two districts of Julundur and Hoshiarpore, into which the Doab is divided, and of Dr. Sill, who was deputed by Government to make especial inquiries.

2. Since my return from Lahore, in December last, I have been traversing the country in every direction up to this period, and, among other public pursuits, have been making inquiries and collecting data in respect to cotton cultivation. I was unfortunately too late to see the crop of last season on the ground, but I have ascertained enough to satisfy me that the opinion I expressed in my letter, No. 690, dated 28th November last, from Lahore, is substantially correct, and that this Doab has little pretensions to be called a cotton country. As my views differ in several essential points with those entertained by Mr. Vansittart and Dr. Sill, it is necessary that I lay before Government the grounds on which I have formed my conclusions.

3. I propose to premise my remarks with a short analysis of the reports of these gentlemen.

4. Mr. Vansittart states that cotton is sown in March, except on the banks of rivers, where it is sown in July; and that where the crop is not irrigated the return is poor. I coincide in these opinions generally, but think that cotton is sown both in March and towards the end of June, after the first fall of rain, and that there is little or no cotton grown on the banks of either the Beas or Sutlej. I am also, of opinion, that the great mass of cotton grown in the Doab is produced on unirrigated lands, for the reasons which I will hereafter assign.

5. The cleaning of cotton is certainly a laborious and expensive process; it usually absorbs the whole value of the seed. In Pulwul it was the custom for the cleaner to take the seed as his remuneration, the owner receiving the cotton. I understand that Mr. Vansittart has made the same arrangement for cleaning the cotton he has collected for transmission to England. In all the estimates† I have received the cleaning expense forms a large item; any improvement which can therefore be effected by the introduction of machinery will be a universal benefit.

6. I coincide

* From Deputy Commissioner, Julundur, No. 130, dated 26th December 1846; from Dr. Sill, dated 27th January 1847; from Deputy Commissioner, Hoshiarpore, No. 33, dated 9th February 1847.

							<i>Rs.</i>	<i>a.</i>	<i>p.</i>
† Delhi	-	-	-	-	-	-	10	12	9
							8	1	7
Pulwul	-	-	-	-	-	-	4	3	2
Rahoon	-	-	-	-	-	-	4	12	10

I.
Bengal and
North Western
Provinces.

6. I coincide with Mr. Vansittart, that the best cotton grows in the highlands where water is at a considerable depth, which, however, is opposed to Dr. Sill's opinion. I do not think that all cotton requires irrigation; that grown in some places and irrigated, may yield a larger return; but I have ascertained, beyond question, that the greater proportion of cotton in the Doab is not irrigated, and that all the finest kinds are grown where irrigation is impracticable.

7. In the Julundur district, which embraces the southern portion of the Doab, water is generally near the surface; in no places is it 40 feet distant, in the majority from 10 to 15. This is clearly shown from the fact that the Persian wheel is the mode used for raising water, which it is obvious would be impossible if it was very distant from the surface. I admit that in some places the people in Julundur irrigate their cotton, and have shown that they have the facilities for so doing; but I repeat that the practice is not generally adopted. Mr. Vansittart is correct when he asserts that sugar-cane pays little better than cotton; his estimate of the return from the former crop is also just, but I do not think that any of the cotton in his district is superior to that imported; it is vastly inferior to that grown in the skirts of the hills.

8. This officer* estimates that an acre will yield on an average 692 lbs.,† which he values at a fraction less than 25 rupees. The estimate of produce is moderate, that of its value too high. I would estimate its retail price at 21 rupees, but it must be recollected that the cultivator would sell at 30 per cent. lower at the time of harvest, so that he would probably receive not more than 14 or 15 rupees for his acre of cotton, out of which he has to pay all the expenses of cultivation. No wonder, then, by universal consent among the agriculturists, it is admitted that cotton cultivation does not pay.

9. Mr. Vansittart‡ estimates the net profit of an acre at but three rupees on irrigated land, and less than this sum on unirrigated soils. He considers that cotton yields a rent of Rs. 7. 11. an acre;§ my inquiries, which Mr. Cust confirms, lead me to conclude that four rupees is about the average of rent on cotton land. Rent is very high in the Doab, but this arises from the density of the population, not from the superior fertility of the soil. Up to the period of the cession, the proprietors of the soil have literally received no rent at all, the revenue demands have swallowed up all that could possibly be squeezed out of the people. In jagheer villages the jagheerदार's demands had exceeded rather than fallen short of one-half the gross produce, a demand unknown in equally favoured districts, where the proportion of population to area is less excessive. The rent of cotton land is always paid in money, and Mr. Vansittart estimates it at one-third the produce, other products paying one-half. Is it not unaccountable, that if this is a fine cotton country, that the agriculturists consider it will not pay with an advantage of one-sixth in the rent of land, and that the Julundur district, comprising half the Doab, is estimated to grow but 8,000 acres.

10. It is a mistake|| to suppose that the cotton of the south is all grown on canal lands. In Hansie, Kurkondah, Rotuck and Delhi this is generally the case, but in Pulwul, Horul, Huthen and Kosee it is all grown on unirrigated land; nor, as I have already stated, is all the Julundur cotton, or even a large proportion, irrigated; the fact, therefore, which Mr. Vansittart admits, that capital is employed on sugar-cane, and not on cotton, must arise simply from its cultivation not paying, and not from the expense of irrigation.

11. It is incredible,¶ in my judgment, that cotton on the Chenab yields a rent of 18 rupees per acre; if this was the case, that tract would be the finest country in India for cotton, whereas it is acknowledged by all the merchants, that the Delhi cotton finds its way into the Punjab.

12. Mr. Vansittart has been authorised to try experiments in cotton cultivation on the lands of a number of government wells near the town of Julundur. We shall have the results by next cold season, but even if his experiments succeed, which I doubt, I do not consider that they will satisfactorily show the results of an extended cultivation in the Doab. The land he is cultivating being near a large city, will be cheaply and abundantly manured, an advantage which extensive tracts of cultivation cannot obtain.

13. Dr. Sill** considers the soil of the Doab as eminently adapted to the cultivation of cotton; I differ from that gentleman. The soil here is light and sandy, which it is notorious is unfitted to the growth of cotton. The strong black clay of Bundelcund, the hard, firm soil of Pulwul, Kurkondah and Kosee is infinitely more suited for this produce. The fact that kunkur (which I believe is nothing more than the concrete of lime formed from water lying on it, and is found in all parts of the Upper Provinces, whether the soil is adapted for cotton or otherwise), prevails in the soil of the Doab, proves nothing; it abounds in the

Upper

* Vide para. 9 of his Report.

† Uncleaned.

‡ Vide statement to para. 5 of his Report.

§ Vide para. 10 of his Report.

|| Vide paras. 11, 12 & 16 of Mr. Vansittart's Report.

¶ Para. 13 of Mr. Vansittart's Report.

** Vide Dr. Sill's remarks on the nature of the soil.

Upper Doab, between the Ganges and Jumna, which is by no means famous for cotton cultivation. I have always observed that the soil which produces gram in abundance is suited to cotton, and is of a fertile description. There is hardly any gram in the Doab.

14. In some localities water, I admit, is found close to the surface, but these are places which either do not grow cotton, or where its produce is inferior. The best and finest kinds, as I have already observed, are grown where irrigation is impracticable. The traces of the canal alluded to by Dr. Sill are in existence, but it does not lie in that part of the Doab which yields any considerable quantity of cotton. It appears to me that a canal could not be dug so as to reach the uplands, where, of course, water is most required; certainly not, except at a most enormous expense both in the original outlay, and in keeping open its mouth, owing to the lightness of the soil, and the varying character of the beds of the Beas and Sutlej.

15. I concur in Dr. Sill's remarks on the mode of cultivation, in which there is nothing peculiar. The fact that the soil is badly manured is undoubted, and arises from local peculiarities over which we have no control, and which would alone prevent the cultivation of cotton being much improved. This arises from the difficulty of procuring manure. The people are fully alive to its value, and are provident in saving it up; but they have but few cattle, owing to the absence of grazing lands, and from the excessive scarcity of wood (which I have never found cheaper than two maunds for the rupee), much of what would otherwise be used on the land is converted into fuel by being baked in the sun.

16. No doubt the picking and cleaning of cotton might be vastly improved, but this remark is not peculiar to the Julundur, but applies with equal force to all places where cotton is grown. I submit, with this report, three specimens of cotton, which I purchased in the town of Julundur, which it strikes me are very fairly cleaned. The introduction of English gins throughout India would probably tend more to raise the value of its cotton than any plan that could be devised.

17. As to the quantity of produce, I think Dr. Sill's estimate of 207 lbs. for an acre of cotton is fair enough, but I do not think that there is so much difference between irrigated and unirrigated land, though there is probably some. The zemindars, no doubt, are afraid to answer truly such inquiries, experience having taught them to dread all investigation into the profits of agriculture, and if it is the case more or less in our old provinces, must be much more so in a newly acquired territory. But as the people freely tell what is the produce of sugar-cane, wheat and barley, there can be no especial reason to conceal that of cotton. I have been repeatedly assured by the cultivators that cotton is not a productive crop, that sugar-cane is eminently so, and that the former is grown solely for consumption, not for sale. I have seen the whole of the country between Byrowal and Umritsur, and doubt the correctness of the estimated produce in those parts. I have not seen Deena-Nugger, which is some 20 miles beyond the Beas, a little way after it leaves the hills, and about opposite Noushera, beyond Mokerian, but this I feel assured of, that the Delhi cotton crosses the Beas, which certainly is inexplicable, if Deena-Nugger and Umritsur is so fine a cotton country.

18. There is little worthy of remark regarding the quality of the cotton,* except that there is a very considerable difference in the different kinds grown in the Doab. The neighbourhood of Rahoon is not famous for cotton, but it is at that place it is manufactured to some extent into cloth. The best cotton grows in Bhit Manswal, on the top of the lower range of hills, where there are no wells, and where the people of six and eight villages have a single well on the lower ground to drink from. The next best is the district of Ghur Shunkur, which embraces all the villages under the hills from 15 miles east of Hoshiarpore to within a couple of miles of the Sutlej; this is called the "Kundi" cotton, that term being the designation by which the land under the hills is known. Here water varies from 50 to 100 feet deep, and where not an acre of irrigated land is heard of. The country round Hoshiarpore, for 15 miles in every direction except the north (where it extends but five miles), ranks in the third class; here water is very near the surface, and the soil is cool and moist. This district is termed "Sirwal," and the cotton is sown towards the end of March. The midland tracts termed "Dhak," from the tree of that name which grows in its waste lands, holds the fourth place; it embraces part of Rahoon and greater portion of Nowashuhur, Phillour, Dhurowlee, &c. The tracts on the banks of the rivers are termed "Bheet," or lowland, and are quite unsuited to cotton. The lands about Julundur, Nukodie and Junsher, forming the southern portion of the district adjoining the Beas, are termed "Dhonah," from the Persian wheel used for drawing up water, and are the places from whence the irrigated cotton chiefly comes, and which is considered vastly inferior to the three first kinds above described. It is generally calculated that the uncleaned cotton yields about one-third cotton to two-thirds seed. The best kinds probably yield that proportion, the inferior kinds from 2 to 4 per cent. less. But on this point I speak with hesitation, for I do not place much confidence on the opinions I have gathered, for unless people are very observant and accurate, they are liable unwittingly to mislead.

19. Dr.

* Quality of wool.—Vide Dr. Sill's Report, chap. 5.

1.
Bengal and
North Western
Provinces.

19. Dr. Sill concludes his report by admitting that the Doab is not a cotton-growing country, but that from the nature of the soil and the capabilities of irrigation, it would, under proper treatment, exceed all other parts of the country in the quantity, quality, and cost of production. I confess that the opinions I have arrived at are very different. The quality of that grown in peculiar localities I fully admit. That produced in the greater part of the Doab I consider is in no way superior to cotton grown in other parts of the Upper Provinces. I have also, I think, satisfactorily shown that the best cotton is grown on lands where irrigation is impracticable. I have given reasons why it would be difficult to increase the productive powers of the land by manuring, if, indeed, the doing so would not injure the quality of the crop. I have explained my reasons for not thinking the soil of the Doab peculiarly adapted to cotton cultivation. Throughout the Doab the richest and most favourite crops are sugar-cane; every man who has the means cultivates a little; wheat and barley are the staple produce for the spring; rice in the swampy low lands, and jowar in the up-lands, for the winter crop. The ordinary proportion of cotton is 2-5ths of an acre to a plough, by which 10 acres are cultivated per annum. "We grow cotton for the house, not for sale," is the answer I received to all my inquiries. The women and children weed, pick and spin the cotton, and the village weavers make the cloth, which the poor wear; the expense, therefore, of the cultivation of a small quantity is not felt, and saves the outlay of hard cash. How different is it in Pulwul and other districts on the Delhi side. Here you are told, "let us only have early rain and we shall have a good cotton crop, which will of itself pay the revenue."

20. If I consider the soil of the Doab in no way favourable for cotton cultivation, I think the climate still less so. Here the cold sets in early, and the frost is severe. A single night of frost ruins the cotton crop, which it withers and destroys, the pods dropping from the stalks, and the leaves shrivelling up as if scorched with fire. The mass of the cotton is unirrigated, if, therefore, the rains set in late, the cotton crop must fail, for the cold weather will arrive before the cotton crop is gathered.

21. If the Julundur Doab has great facilities as a cotton country, how is it that such vast quantities are imported from a distance? Messrs. Vansittart and Cust both allow this fact. The merchants of Julundur assure me that they import 50,000 maunds; those of Hoshiarpore 10,000. There is not a petty town in the province that does not import cotton; it is more easily procurable than native produce; the roads are covered with waggons and camels laden with cotton. Last night I met a string of camels as I rode into Hoshiarpore, laden with cotton from Jugadri, on the Jumna, which had been a month on the road. From Buwain in Rohtuck to the town of Julundur must be upwards of 200 miles, over sandy roads and deep nullahs, and the route lies through the independent states, where, until lately, heavy and vexatious duties were levied. Is it conceivable that cumbrous waggons would plough their weary way through this distance, if the Doab had facilities for cotton cultivation? The imports to Julundur do not, however, stop there, much of them pass on to Hoshiarpore, find their way to Mokerian, penetrate the Punjab, and even obtain a market at Haugrah, through a mountainous tract of 50 miles, where goods can only be transported on mules, bullocks, and men's shoulders.

22. It is difficult to estimate the quantity grown in the Doab. Mr. Vansittart thinks that his district, which is one-half the country, grows 8,000 acres, in Hoshiarpore the other half, which is decidedly the cotton country, the estimate is 20,000 acres. I do not doubt that there are 30,000 acres grown, there may be more; the quantity is quite problematical, for there are no data on which to rely. When the country is surveyed and measured, the exact quantity can easily be ascertained.

23. A great difficulty to extending the cultivation of cotton is the tenures of land, and the fact that the country is fully cultivated and densely peopled. I may safely assert, that nearly all the arable land is under cultivation; Government could not procure land in any extent for experiments, and the people would not willingly grow cotton for it. I know of no act so unpopular as the unavoidable appropriation of lands required for cantonments; no recompense seems to satisfy the people; they say, "we don't want its price, what are we to do without land." In fact, as in Ireland, a man must cultivate land or starve.

24. In conclusion, I have only to state, that I consider it a fallacy that cotton is extensively grown in the Doab, and I further think, that any attempt to force its cultivation will prove a failure, and involve Government in loss of money and in much unpopularity. To this report I beg to add notes of the information I have collected in my investigations, and an estimate of the produce of an acre of cotton in Pulwul, Delhi, and in this territory.

I have, &c.

(signed) *John Lawrence,*
Commissioner and Superintendent.

Commissioner's Office,
Trans-Satlaj States, Camp, Hoshiarpore,
19 March 1847.

APPENDIX.

NOTES of INFORMATION collected by the Commissioner in his Investigations on the subject of the Cotton Produce of the Julundur Doab.

THE town of this name contains nearly 40,000 souls, and is a place of considerable trade. It is the civil station of the southern division of the Doab. I was there in December last, just after the cotton season was over. The merchants told me that full 50,000 maunds of cotton were annually imported from Buwani, Kurkonda and Hansie; that the produce of the country was limited, but that the cotton grown under the first range of hills was of the best quality; that imported the next, and that of the plains the least good; they assured me that the Delhie cotton spread over the Doab, crossed into the Punjab, and penetrated into the Kangra Hills. Julundur.

During my travels in the southern portion of the Doab, I observed more fields of cotton about Nicoda, Phillour, Jumsheir than in other places, but nowhere to any considerable extent. Along the roads I met strings of carts all laden with cotton from the Delhie districts.

The cotton grown round and about Julundur, and the other parts of the southern portion of the Doab, is chiefly unirrigated, though water is close to the surface and wells abundant. The produce is all considered third-rate by the people.

This division of the Julundur district lies along the left bank of the Beas. The land is low, and usually flooded in the autumn. The spring crops are abundant; those of the winter scanty. At the town of Tanda on the 19th February, I saw two carts laden with cotton imported from Rohtuck. The carter said that he had been 30 days on the road, that he had paid Rs. 5. 4. on each cart as transit duty in the Seikh States; that he had purchased at Rs. 6. 4. per maund, and expected to sell at 9 rupees, and that he would take back hemp. This venture would give a profit of about 15 per cent.: *vide* account in the margin.* Urmur Tanda, 116 Government villages paying 1,19,556 rupees, besides jagher lands.

The agriculturists of the Tanda district, say that they grow little cotton, though the land is fertile, owing to the autumnal inundation; they estimate that about two-fifths of an acre may be grown for each plough; that at harvest 34 lbs. of uncleaned cotton with the seed, sells for a rupee, and that this quantity gives the following return:—

	Rs.	a.	p.
Clean cotton, 7 lbs.	-	11	-
Seed - - 27 lbs.	-	7	-
Rs.	1	2	-

They further informed me that the Tanda cotton was inferior to that of Delhie or what is grown under the skirts of the hills, in the following proportions:—80 lbs. of clean Tanda cotton, fetching $7\frac{1}{2}$ rupees, the same quantity of Delhie produce sells for $8\frac{1}{2}$ rupees, and of Rahoon cotton for $8\frac{3}{4}$ rupees; they also told me that sugar-cane was the most paying crop, then wheat, and that cotton did not pay at all; and was only grown for the personal consumption of the cultivator; I saw few traces of cotton cultivation, either here or anywhere along the banks of the Beas, from Noushera to Sultanpore, a distance of 40 miles at the least.

Rahoon is the chief town of the district of the same name. It must formerly have been a place of considerable importance judging from the buildings around and in it. The population

* Maunds 70 = 5,600 lbs.	Rs.	a.	p.
Mds. 70 $\times$ $6\frac{1}{4}$	=	437	-
Transit duty	=	10	8
Cart-hire, 30 days	-	60	-
		507	8
Add 10 per cent. for waste, &c.	-	50	8
		558	-
Profit	-	72	-
		70 $\times$ 9 = 630	-

I.
Bengal and
North Western
Provinces.

population now cannot fall short of 9,000 or 10,000 souls, there being 3,600 houses, nearly all built of brick, of which 1,100 are shops.

I visited the place on the 12th of March, when a number of the principal people waited on me. The merchants say that there is still a good deal of trade. They import rice, drugs and iron from the Hills in considerable quantities; salt from the Punjab, English cottons, soda and raw cotton from our Provinces. The exports are fine cotton goods to Mooltan, the Punjab and the Hills, and great quantities of sugar of all kinds.

The merchants and agriculturists assure me that little cotton is produced round Rahoon, the land being too low and moist for its cultivation; that there is more cotton grown near Nowashebur, and in the skirts of the hills; the latter is of superior quality, and sells from 8lbs. to 10 lbs. for the rupee. Delhie cotton fetches from 6 to 7 per cent. less. The price of that grown round Rahoon is a shade cheaper than the Delhie cotton; it is difficult however to say what price it bears, for hardly any is sold, all is worked up into cloth by the people. It is estimated that perhaps 20,000 maunds, 16,00,000 lbs. is grown in the Doab. Everything however depends on having early rains; if sown late, the cold weather sets in before it can be gathered, when the cold shrivels up the plant, and destroys it; soil slightly sandy yields better crops than hard and strong land. Irrigated land yields a greater produce; unirrigated lands under the hills, cotton of a finer quality. The best land irrigated will yield 20 rupees' worth of cotton and seed; good soil not irrigated 116 rupees per acre, but the Rahoon land will not give such a crop. The rent of cotton land is but Rs. 3. 12., that of sugar-cane 12 rupees per acre; garden-stuff, tobacco, poppy yield a higher rent.

Such is the information I collected on the spot; and in my rides I certainly did not see the traces of much cotton cultivation.

Hoshiarpore.

This is the chief town and revenue division of the district of the same name. It pays a revenue of 2,09,000 rupees, and has a large proportion of jagheer besides. The chief merchants assured me that their neighbourhood was a poor cotton country; that its whole produce did not suffice for the home consumption, and that full 10,000 maunds were annually imported into the town from Bewanie and Rohtuck, and that the importation was on the increase, in consequence of the abolition of transit duties in the Seikh States; they assured me that no cotton came from the Punjab, but that the Delhie cotton went there, as well as into the hills round Kangrah. The agriculturists asserted that the cultivation of cotton did not pay, but that what was grown in the neighbourhood of the lower range of hills was, in every respect superior to any other cotton. Delhie cleaned cotton usually sells at 10 lbs. the rupee; that from near the hills at only 7 lbs.

In riding over the country, I saw a few fields here and there where cotton had been grown, but to all my inquiries I received the same answer, that there was little grown, and solely for private consumption. In one or two places I was told that the climate was too cold for it. At Hoshiarpore I saw not less than 20 carts arrive laden with Delhie cotton, to the extent of between 600 and 700 maunds, during the few days I remained there. Cotton is sown in this district in March, as well as July, in unirrigated land, the soil being sufficiently moist for the purpose. Water varies only from 10 to 15 feet from the surface. This cotton thus early sown, is gathered in October, November and December; that sown in July would be a month or six weeks later. This district is called Seerwal, from the moistness of the soil; it is entirely flooded in the rains from the mountain streams, and grows magnificent crops of wheat, barley and sugar-cane, without any well irrigation.

The tehseeldar gave me the following return of the comparative profit derived from the cultivation of sugar-cane and cotton:—

Sugar-cane, per acre :							Rs.
Produce	-	-	-	-	-	-	90
Expense for cultivation	-	-	-	-	-	Rs. 13	
Rent	-	-	-	-	-	20	
							33
Profit	-	-	-	-	-	Rs.	57
Cotton, per acre :							Rs.
Produce	-	-	-	-	-	-	16
Expense	-	-	-	-	-	Rs. 12	
Rent	-	-	-	-	-	4	
							16
Profit	-	-	-	-	-	-	Nothing.

Mokerian is that part of the Hooshyarpore district bounded by the lower range of hills on the north, and by the Beas on the south and west. The land in the skirts of the hills produces fine cotton, but the whole quantity does not exceed 1,500 or 1,600 acres, of which one-third is said to be irrigated, and two-thirds unirrigated, but I doubt very much the proportions. The people say its cultivation does not pay. They estimate the yield of an acre at Rs. 12. 8., and the expense at about 10 rupees. The average cultivation is said to be three-fourths of an acre to each plough. Cotton is imported in considerable quantity, and none of that grown is exported.

Mokerian pays a Government revenue of little short of two lacs, and has some but not much jageer.

Juswan Doon is said to yield about 4,000 acres of cotton, all of it unirrigated. This tract pays a revenue of 90,000 rupees, and has perhaps half that sum in jageer. The Doon lies between two ranges of low hills, and, with the table-land on each side, comprises an immense extent of country, not less than 60 miles long and 20 broad. The soil is generally poor and broken, being intersected in all directions by ravines and mountain torrents. On the sides of the hills, as well as on the table-land, there are no wells; all the water is brought from below, and, even there, seven or eight villages have but a single well. The cotton produced in some 30 villages on the top of that portion of the range above Ghur Shurker, which is called Bheit Manswal, is said to produce the finest cotton in the Doab. I do not believe there is a well in the whole of this range.

Hajeepore is a district containing 220 villages belonging to Government and Jageerdars, and is situated on the western extremity of the Doon or valley north of the lower range of hills. The soil is about average quality, firm and dry, being of that description said to be suited to cotton. In a conversation with a number of the proprietors, merchants, and cultivators, I ascertained the following points:—

The cotton grown about Hajipore is particularly fine (*vide* specimen, marked 1). Cleaned cotton of this quality usually sells at 7 lbs. for the rupee, while that imported is only valued at 10 lbs. for the rupee. Not more than 100 maunds, 8,000 lbs. weight, however, is calculated to be grown in an abundant year, and all on unirrigated land. This year the cotton crop was a failure, which was always, more or less, the case when the autumn rains did not set in early. It is calculated that about two-fifths of an acre of cotton is cultivated to each plough, and that all that is grown is consumed in the country, and much imported besides. The cotton cultivation is pronounced to be expensive, uncertain, and not paying.

I visited this district in February, too late of course to see the cotton crops, but the stalks of the plant were visible. I should judge, from what I saw and heard, that the cotton crop cannot exceed two or three per cent. of the whole cultivation. Water is from 50 to 80 feet from the surface in this tract.

This is a very large subdivision of the Hooshyarpore district. It pays Government a revenue of 179,000 rupees, and perhaps half as much more is in jageer, and contains the whole of the tract under the hills, full 20 miles long and 10 broad, which is always named as producing the finest cotton. I visited it in March, too late to see anything but the marks of cotton cultivation. The agriculturists say, that in the vicinity of the hills, where water is distant from the surface and the soil firm, a good deal of cotton is grown, all of fine quality; but that when water is near the surface the produce is inferior, and the quantity limited. All the cotton is grown without irrigation; and, near the hills, an acre of good cotton is estimated to be worth from 16 to 20 rupees. At a distance from 12 to 15 miles, they estimate that the native cotton is superior to that imported, in the proportion of 5 to 4½, but that a good deal was imported, for that the cultivation was not profitable. In a village under the hills, near to the town of Ghurshunker, which has just been measured, I find 12 acres of cotton out of 454 of cultivation, or 2½ per cent.; six to eight per cent. I would estimate as the average amount of cultivation throughout the district. Water varies from 40 to 140 feet deep in this tract.

(signed) John Lawrence,

Commissioner and Superintendent.

I.
Bengal and
North Western
Provinces:
—
Mokerian.

Juswan Doon:

Hajeepore:
Government Revenue
Rs. 71,945.

Ghurshunker.

I.
Bengal and
North Western
Provinces.

STATEMENT showing the Cost of an Acre of COTTON CULTIVATION in the *Delhie* and *Julundhur* Districts.

1. DISTRICTS.	2. DESCRIPTION of SOIL.	EXPENSES OF ONE ACRE OF COTTON CULTIVATION.										QUANTITY PRODUCED.			VALUE OF PRODUCE.		18. NET PROFIT.	19. REMARKS.
		3. Land Rent.	4. Ploughing.	5. Manure.	6. Seed.	7. Weeding.	8. Water.	9. Collecting.	10. Cleaning.	11. Total.	12. Cotton.	13. Seed.	14. Total.	15. Cotton.	16. Seed.	17. Total.		
		<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Lbs.</i>	<i>Lbs.</i>	<i>Lbs.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>(a)</i>
Near <i>Delhie</i>	Best soil, irrigated from canals.	6 6 4	4 - -	6 6 5	- 4 10 for 19 lbs.	3 13 2	1 - -	7 0 4	10 12 9	40 5 10	384	1,152	1,536	28 12 9	14 6 5	43 3 2	2 13 4	
	Second rate, irrigated from canals.	4 12 9	3 3 2	3 3 2	- 4 10	3 12 2	1 - -	5 1 7	7 3 2	28 9 10	256	768	1,024	19 3 2	9 9 7	28 12 9	- 2 11	
	First kind, unirrigated soil.	4 12 9	4 - -	2 2 2	- 4 10	3 13 2	- - -	5 11 10	8 1 7	28 14 4	288	864	1,152	21 9 6	10 12 9	32 6 3	3 7 4	
	Second rate, unirrigated soil.	3 9 7	3 3 2	1 9 7	- 4 10	3 13 2	- - -	4 7 4	6 4 9	23 4 5	224	672	896	16 12 9	8 6 4	25 3 1	1 14 8	
Pulwul, Southern Division <i>Delhie</i> Territory.	First rate, unirrigated land.	4 12 9	5 9 7	3 3 2	- 9 7 for 38 lbs.	3 9 7	- - -	3 3 2	4 3 2	25 3 -	342	682	1,024	23 7 6	6 13 2	30 4 8	5 1 8	<i>(b)</i>
	Second rate, unirrigated land.	3 9 7	4 6 5	2 6 5	- 9 7	3 - -	- - -	2 6 5	3 3 2	19 9 7	256	512	768	17 9 7	5 2 -	22 11 7	3 2 -	
<i>Rahoon</i> , <i>Zillah Julundhur</i> .	Best unirrigated land.	5 3 4	2 9 -	1 4 -	- 5 1	2 9 -	- - -	3 13 6	4 12 10	20 8 9	154	460	614	19 3 2	4 12 10	24 - -	3 7 3	<i>(c)</i>
	Second rate, unirrigated land.	3 3 10	2 9 -	- 10 3	- 5 1	2 9 -	- - -	2 9 2	3 3 2	15 1 6	102	306	408	12 12 10	3 3 10	16 - 8	- 15 2	

(a) The expenses appear great; but as the people cultivate their own land, the expenses shown in Columns 4, 7, 9, are hardly felt, as the family perform it themselves.

(b) The remarks on the expenses of cultivation made on the return for *Delhie* is equally applicable here. The expense of seed is very much greater in this return; but the *rehseeldar* remarks that for the seed he took its price at the time of sowing, and for the value of produce its price at harvest, and that the difference is 36 per cent. The soil of *Pulwul* is superior to that of *Delhie*, but I do not understand why double the quantity of seed is used. Formerly it was the practice in *Pulwul* that the cleaner took the seed as his wages, and the cultivator the cotton. Seed has now risen in price,

and cotton fallen; a fixed sum, therefore, is now paid for the operation. Clean cotton varies from 20 to 12 lbs. for the rupee.

(c) Average price of uncleaned cotton, 32 lbs. for the rupee. The cultivators, when selling it, usually dispose of it uncleaned; but when cleaning it, give the seed to the cleaner, as the wages of labour. The soil here being very light and easily ploughed, accounts for the moderate expense of ploughing. It is usual about *Rahoon* to grow cotton in succession to a wheat crop.

(signed)

J. Lawrence,
Commissioner and Superintendent.

I.
Bengal and
North Western
Provinces.

In less fertile parts of Hindoostan, the rate of rent does not exceed one-third or two-fifths. Here it has been found, that one-half of the produce suffices to feed and clothe and support the husbandman. But on cotton there is throughout India a fixed money rate. Assuming that in consequence of the greater expense attending the cultivation of this product, the money rent is calculated at one-third of the whole value, we have the best criterion for obtaining the real quantity of cotton grown on a given acre. In no part of the Doab have I found that rate exceed 10 rupees per acre; generally it averages 7 rupees per acre.

11. There is no doubt that the return is small when compared with the produce grown on a given acre in the Hansi and southern districts. But it is a larger average return than is obtained on the experimental farm at Broach.

12. Cotton grown on the thirsty soil of the Julundur must be irrigated: well irrigation is dear, canal irrigation is cheap. The cotton grown in the south is all irrigated by canal. We (as yet) have no canal in the Doab. Moreover, the average rate of produce grown on a given acre of sugar-cane is so enormous, that all the capital of a village (consisting of labour and bullocks) is laid out in the cultivation of sugar, and that quantity of cotton is grown that suffices for the consumption of the village.

13. But if the quantity of produce is deficient, the quality is superior, and the further north we inquire the more superior is the article. When, in October last, I marched with Brigadier Wheeler's force, I found that irrigated cotton between the Ravee and Chenaub paid 18 rupees per acre as rent near Amritsur; the rent is certainly equal to 8 rupees 8 annas.

14. But the cotton grown in some parts of the Julundur Doab is finer and softer and whiter than the coarser cotton grown down the country. At Ruhon, in my district, there is a native cloth manufactory conducted by labour of the hand. Coarse cloth is manufactured from cotton imported from across the Sutlej; but the fine cloth (a specimen of which I annex) is manufactured from the fine cotton of the Doab.

15. The cotton plant often attains a height of eight and nine and ten feet when irrigated. It does not spread its branches. Some Egyptian cotton sown by me as late as August attained an inconsiderable height, but spread broad branches. The produce has failed, the frost having set in before the pod was ripe. But the experiment will be renewed next year, and (I doubt not) with greater success.

16. In writing the above report I have shown, I hope, that cotton of the Doab, if inferior in quantity of produce, is superior (in certain localities) in quality. I am of opinion, that if the supply of irrigation was plentiful, the produce would be greater. I attribute the neglect of the cultivation of the article to the too great expense attending irrigation from wells of brick work.

17. I conceive that the experiment of extending and improving the cultivation of this finer cotton should be carefully tried. I shall have occasion to attach certain rent-free wells in every part of my district, and would propose that the land attached to these wells should be set aside for trying this experiment. We, too, have lands in the Doab which are Government lands; the expense would be trifling. I have endeavoured to procure a bale of the best cotton, and shall, when satisfied of the quality, send it to Bombay by the Sutlej and Indus, consigning it to the care of the Secretary to his Excellency Sir Charles Napier.

I have, &c.

(signed) H. Vansittart,
Deputy Commissioner and Superintendent.

Julundur, Deputy Commissioner's Office,
21 December 1846.

From *H. Sill*, Esq., on special duty, Julundur Doab, to *John Lawrence*, Esq., Commissioner and Superintendent, Trans-Sutlej Territories.

Sir,

IN obedience to instructions conveyed in Mr. Secretary Currie's letter to my address, under date the 7th October 1846, I proceeded from Agra to Julundur for the purpose of examining and reporting on the cotton growing in the Doab, and have now the honour to submit the following report for the information and orders of the Right Honourable the Governor-general.

I commenced my tour of inquiry in the early part of November, and from that period up to the present have visited nearly every portion of the Doab, as well as Noorpoor, and various localities beyond the Beas, where my information led me to suppose I should find cotton of a superior quality.

1. *Nature of the Soil.*

The first point to be considered is the adaptation of the soil to the growth of the plant, and the flourishing condition of the fields, even at the late season at which I arrived, leaves
no

no room to doubt that it is so adapted in an eminent degree. It differs entirely in appearance from the cotton soil of Bundelcund, but rather resembles some descriptions of American soil, which, according to an analysis by Mr. Piddington, owes its peculiar fitness for the growth of cotton to the lignite which prevails in it. According to the same authority, the kind of soil which ranks second to that of America, is that in which kunkur is either naturally present, or artificially supplied in the form of half-burnt lime; and as throughout the Doab kunkur is found in greater or less degree, it is probable that to this fact the great luxuriance of the cotton plant may partially be ascribed. In addition to natural productiveness, it is to be remarked that great facilities exist for artificial irrigation, and by this means the plant is rendered independent of the chances of the seasons. Water is found in most localities a few feet from the surface of the ground, and the consequence is, that nearly every village abounds with wells.* Formerly, I believe, a canal, cut from the Beas, traversed a considerable extent of the Doab, and as its course is said to be still traceable, it might easily be opened, and at comparatively small cost, rendering a large tract of country unfailingly productive, either for the growth of cotton, or any other description of crop.

2. *Quantity of Land under Cotton Cultivation.*

I do not imagine that the returns I have been able to obtain on this head are very satisfactory; nor indeed is the point of much importance, as, except in a very limited degree, no cotton is grown beyond what may be required for home consumption. The Purgunnah of Jullundur gives a return of 1,583 gomass,† Rahoon 1,954, whilst Makerian, where I observed the least signs of cotton cultivation, gives 2,605. In every part of the district, however, cotton fields are found, with the exception of those lands which are subject to periodical inundation from the rise of the Beas and Veyn, and those low swampy grounds which prevail in the neighbourhood of Tanda, and other places. †3,781 square yards.

3. *Mode of Cultivation.*

This depends on the description of land to be brought under tillage; if it is susceptible of irrigation, the ground is prepared, and the seed put in about the end of March; if otherwise, the cultivation commences as in our provinces on the first fall of rain, which generally takes place about the beginning of July; little or no manure appears to be used, and with the exception that the crop is seldom mixed with any other kind of produce, and more care bestowed on keeping the ground free from weeds, there is nothing different from the ordinary native mode of cultivation; the fields are always sown too thickly, and this is especially observable in the irrigated lands, where the plant receiving abundance of nourishment, but having no room to spread, throws up a long, woody, and comparatively unproductive stalk; whereas, had the field been properly thinned, and the plant prevented from attaining too great a height, it would have thrown out lateral branches, bearing pods of increased size, and given a better return to the cultivator, both as regards the quantity and quality of the produce. But however evident it may be that defective cultivation renders the cotton of this country less valuable than it would otherwise be, the great drawback to its being sought after in England is the careless way in which it is picked and cleaned; leaves, earth, and damaged pods are indiscriminately mixed with good cotton, and the result is, that as a marketable article it loses nearly half its value. In proof of this, I may mention that, at Meerthul, I met a party of Beoparees returning from Julundur to Shahpoor with cotton, which they had purchased at 9 rupees 6 annas per maund. I showed them a sample which I had obtained without selection at Pathankot, and taken the trouble to pick and clean perfectly. They said that such cotton would be worth 12 rupees 8 annas per maund, but would not credit me when I told them it was produced within a few miles of Shahpoor.

4. *Quantity of Produce.*

On this head I am disposed to think very favourably, especially with reference to the general non-employment of manure, and the defective mode of cultivation before adverted to. It appears that the average produce per acre of marketable cotton is 207 lbs. 8 oz. from irrigated land, and 168 lbs. from that which is unirrigated. In an article published in the "Bombay Times" of 11th July 1846, I find it stated that "the average produce of a beegah of marketable wool is 45 lbs." I have been unable to ascertain the extent of the beegah referred to, but on comparing the amount of rent stated by the same paper to be paid for cotton lands with that which is paid by the Superintendent of the Government farm at Broach, I am disposed to fix it as nearly as possible at half an acre, or say 95 lbs. of produce per acre; at all events, it cannot, I imagine, much exceed this quantity, for in the report submitted to the Bombay Government on the operations at the Broach farm for the year 1844-45, I find that the produce is within a mere fraction of 110 lbs. per acre, being less than the returns obtained here by 58 and 97 lbs. respectively in the case of unirrigated and irrigated lands. I have not been satisfied, however, that the quantity of produce has been

* This is only true as regards the Julundur district; the reverse is the case in Hoshiarpore, the cotton country.

(signed) J. Lawrence, Commissioner and Superintendent.

1.
Bengal and
North Western
Provinces.

been stated as high as it actually is. It may at first sight appear that the information sought for could be readily obtained, and that the zemindars could have no reason for withholding it, but I am satisfied the fact is otherwise; they cannot comprehend the object which Government has in view, and are disposed to consider that the inquiry has been instituted in order to obtain grounds for assessing their lands at a higher rate on the expiration of the present limited settlement. At all events, across the Beas, wherever I have had an opportunity of obtaining information, I have found the quantity to be greater than that given by the Jullundhur returns; for instance, between Byrowal and Amritsur, the amount varied from 264 to 306 lbs., whilst, at Deenanuggur, it exceeded the latter rate.

5. *Quality of the Wool.*

On this head also my opinion is very favourable; the staple is generally very fine and silky; longer, I think, than the native produce usually met with, and free from that tendency to curl which marks coarser cottons; it is principally deficient in strength, but this is an objection which improved cultivation would at once remove. There is no material superiority in the quality of the produce of any one part over another, but the Pergunnah of Rahoon, perhaps, furnishes the best. At the town of this name a considerable trade is carried on in the manufacture of cotton goods for exportation to Kabul, Candahar, and Herat. Part of the raw material is imported from the other side of the Sutlej, but all the finer fabrics are made from the cotton grown in the district. The wool separates easily from the seed, and would not therefore be likely to suffer injury from the saw-gins in the process of cleaning; the proportion also which the weight of wool bears to that of the seed is very favourable, being about 3 per cent. less than would be shown in the produce of lands highly manured and irrigated, and with the benefit of superior cultivation. In the report on the operations at the Broach farm formerly referred to, I find that Mr. Hawley, who is, I presume, the American planter in charge, "believes 28 per cent. to be equal to the yield of the best New Orleans produce." He at the same time gives the per-centage of two kinds of native cotton grown under his own superintendence; one, showing 22½, and the other 28, and this last he considers quite equal in quality to the best New Orleans. I do not agree in the estimate as regards American cotton, because I know that 33 per cent. was obtained at the Bundelkund farms, but as regards his own produce we may receive the statement as correct. Now the return from Doab produce, at the rate of 207 lbs. per acre, gives 30 per cent., and this result I have verified in two or three experiments; and I consider it highly satisfactory, when it is borne in mind that the Broach farm had all the advantages which unlimited means and experienced superintendence could afford.

From the foregoing observations, it will be obvious that the Doab cannot now be considered a cotton-growing country, but it would be fallacious to infer therefrom that it was not adapted to become so. On the contrary, I am of opinion that the nature of the soil, and the facilities of irrigation, combined with improved cultivation, are such as to warrant the most perfect confidence that the Julundur Doab would excel any portion of our territories in the growth of cotton, whether as regards the quantity of the produce, the quality of the wool, or the comparative cost of production.

Camp Dussooah, 27 January 1847.

I have, &c.
(signed) *Henry Sill.*

(No. 33.)

From *Robert Cust, Esq., Deputy Commissioner and Superintendent, Hoshiarpore, to J. Lawrence, Esq., Commissioner and Superintendent, Trans-Sutlej Territories.*

Sir,

WITH reference to your letter, No. 60, of 13th ultimo, with regard to the cultivation of cotton in this district, I have the honour to inform you that there are two facts which appear to me to indicate that this is not a "cotton country."

2. In the first place, the importations of cotton from other districts, such as Putteeala, and even as far as Rohtuck, in spite of the heavy duties imposed in the protected Sikh states, is very considerable. Waggon in great numbers are constantly arriving, and since the removal of many of the imposts is visibly increasing. Much of this cotton unquestionably finds its way to Kangra, but still a sufficiently large portion is consumed in this district to indicate that the actual produce of the country does not equal the wants.

3. In the second place, the nerikh* of cotton, as a production of the soil, is very low. I have had numerous opportunities of ascertaining this, in settling the disputes between the jagheerdar and zumeendars. In no case that has come to my knowledge has the nerikh exceeded three rupees per ghomao, while the sugar-cane is generally 18. The cultivation of cotton seems to be confined to a sufficiency for the actual clothing of the zumeendars, and no more.

4. I have

* Market-value: but here apparently the rate of rent of land, according to crop, as adjusted between landlord and tenant.

4. I have forwarded from the Revenue Office the vernacular statements prepared by the tehseldars for your consideration.

Revenue Office, Hoshiarpore,
9 February 1847.

I have, &c.
(signed) R. Cust,
Deputy Commissioner.

I.
Bengal and
North Western
Provinces.

(True copies.)

(signed) J. Lawrence, Commissioner and Superintendent.

(No. 71 of 1847.)

No. 536.

From John Lawrence, Esq., Commissioner and Superintendent, Trans-Sutlej States, to
H. M. Elliot, Esq., Secretary to the Government of India.

Sir,

WITH reference to my letter, No. 49, dated the 19th ultimo, submitting a report on the cotton cultivation in the Trans-Sutlej territory, I have the honour to annex copy of a letter, No. 57, dated 21st instant, from the Deputy Commissioner at Jhullundur, informing me that the cotton required for export to England has been sent off *via* Bombay, and explaining the cause of the delay which has arisen.

Commissioner's Office,
Trans-Sutlej States, Camp Dhurmsala,
26 April 1847.

I have, &c.
(signed) J. Lawrence,
Commissioner and Superintendent.

(No. 57.)

From H. Vansittart, Esq., Deputy Commissioner and Superintendent, Jalundhur, to
John Lawrence, Esq., Commissioner and Superintendent, Julundur Doab.

Sir,

IN reply to your letter, No. 503, dated 16th instant, I have the honour to inform you that the cotton has this day been despatched *via* the Sutlej and Indus.

2. It was my wish to clean the cotton with a gin received some two months ago.

3. But the machinery was out of order; and when that was righted, there was no cleaning-house prepared. Hence a delay has arisen.

4. The cotton is not of the first quality grown, it being of the second picking. I was on the Chenab when instructions were received regarding the purchase of cotton. The first picking was over before I, on my return, had an opportunity of learning which was the best cotton district of this part of the Doab, and of making the purchase required.

Julundur,
Deputy Commissioner's Office,
21 April 1847.

I have, &c.
(signed) H. Vansittart,
Deputy Commissioner and Superintendent.

EXTRACT from a Despatch from the Government of India to the Honourable the Court of Directors in the Home Department, under date 14 August 1848, No. 41.

28. IN continuation of para. 34 of letter No. 51, dated 10th December 1847, the accompanying papers * will inform your Honourable Court that the late Governor-general sanctioned, as a special case, the grant to Dr. Sill of his full allowances during the three months he was on leave at Simla. Full allowances granted to Dr. Sill during the period he was on leave at Simla. His services placed at the disposal of the Commander-in-Chief.

29. The object of Dr. Sill's deputation to the Julundur Doab, to report upon the cotton of that province, having been fulfilled, his services were, at the expiration of his leave, placed at the disposal of the Commander-in-Chief.

* Home Cons., 17 July 1847, No. 20. Home Cons., 7 August 1847, Nos. 4 and 5. Letter from Secretary to the Government of the North Western Provinces to the Secretary with the Governor-general, dated 27 July 1847, No. 378 A. Home Cons., 11 September 1847, Nos. 1, 5, and 7.

I.
Bengal and
North Western
Provinces.

EXTRACT of a Letter from the Honourable the Court of Directors to the Governor-General of India in Council, dated 19 July (No. 6) 1848.

Para. 4. WE forward herewith copy of the report by Messrs. Tetley & Son, on the sample bale of Julundur Doab cotton, which was forwarded to us by the Government of Bombay in the "Malacca":

"Sir,

"London, 31 March 1848.

WE have examined the quality of the small bale cotton arrived by the 'Malacca,' from Bombay, for the Honourable East India Company. There is nothing particular to be remarked upon in its favour. It much resembles a fair quality Bengal. The staple is short, and therefore would not do for general purposes. It is pretty well cleaned from leaf and seed. In the present depressed state of the cotton market, the value may be quoted at 3d. to 3½d. per lb.

"We are, &c.

"F. W. Prideaux, Esq.,
East India House."

(signed) "J. R. Tetley & Son."

EXTRACT Agra Revenue Narrative, North Western Provinces, dated 24 October, No. 3, 1848.

Para. 58; Narr.
No. 2 of 1848.
Rev. Pros. May
1848, No. 43.

74. WITH reference to instructions of the 31st March, the Resident at Katmandoo reported that the information he had obtained did not accord with the impression that considerable quantities of cotton wool were transported through Nipal into Thibet, but there was an exportation of webs to the regions beyond the Snowy Range; though, from the cost of conveyance and the difficulties of the transit, it could not be conducted upon a very extensive scale.

EXTRACT from the Proceedings of the Honourable the Lieutenant-Governor of the North Western Provinces, in the Revenue Department, dated 5 May 1848.

No. 43.

(No. 22 of 1848.)

From Major C. Thoresby, Resident at Nipal, to J. Thornton, Esq., Secretary to the Government of the North Western Provinces, Agra.

Sir,

I HAVE had the honour to receive your letter, No. 1291, dated the 31st ultimo, with accompanying extract para. 18 from Mr. C. Allen's letter of the 16th idem, relating to the cotton trade of India.

2. The concluding lines of the extract mention that the merchants here say, that "considerable quantities of cotton are sent from Mirzapoor to Patna for transmission up the Gunduck, across Nipal and the mountains to Thibet and the western provinces of China;" but the information I have received on the subject does not accord with this impression, nor does it appear to me to be probable that the carriage of cotton wool to so great a distance, over a difficult country upon men's backs, would be found a remunerative speculation. There is, however, an exportation to the regions beyond the Snowy Mountains of bales of woven pieces, both plain and dyed, chiefly of the coarser kind, that is worth noticing, although from the difficulties and cost of conveyance it cannot be carried upon a very extensive sale. A portion of this cloth is brought from the plains, and part of it is manufactured in the Nipalese district.

3. Cotton is raised in many of the villages within the hills of Nipal, but, as may be naturally supposed of it, is of inferior quality, and the supply thus produced is insufficient for the wants of the country. The deficiency is made up in part by importations from below, and on the whole there may be some considerable quantity introduced throughout the several provinces to be worked up at home, though the manufactured cloth seems generally to have the preference, on account of the lower ratio of the cost of transit.

I have, &c.

Nipal, Residency Office,
20 April 1848.

(signed) C. Thoresby,
Resident, Nipal.

EXTRACT from Revenue Narrative (No. 3), dated 16 December 1850.

Para. 81. The Collector of Cawnpore, in forwarding, for the inspection of his Honour, specimens of Mexican seed cotton and cotton wool, produced by Mr. Bruce, Uncovenanted Deputy Collector, from seed procured from Coimbatore, through the Horticultural Society in Calcutta, remarked that he had already submitted a specimen to Mr. H. H. Bell, at Agra, who had reported most favourably upon it. The Lieutenant-governor forwarded the specimens to the Agricultural and Horticultural Society in Calcutta, and requested that the cotton might be subjected to examination, and that such notice of the experiment as might appear called for be inserted in the Society's Journal.

I.
Bengal and
North Western
Provinces.

Cotton.

Specimens of Mexican seed cotton, and cotton wool. Rev. Pro. June 1850, No. 255 to 257.

EXTRACT from the Proceedings of the Honourable the Lieutenant-Governor of the North Western Provinces, in the Revenue Department; dated 28 June 1850.

(No. 454 of 1850.)

No. 255.

From *E. H. Morland*, Esq., Collector of Cawnpore, to *J. Thornton*, Esq., Secretary to Government North Western Provinces, Agra.

Sir,

At the request of Mr. Bruce, Deputy Collector of Cawnpore, I take the liberty of sending, for the inspection of his Honour the Lieutenant-governor, specimens of Mexican seed cotton and cotton wool, produced by him from seed procured from Coimbatore, through the Horticultural Society in Calcutta.

2. I have the less hesitation in sending the cotton, as I have already submitted a specimen to H. H. Bell, esq., at Agra, who has reported most favourably upon it; an extract of his letter I beg to add: "I think it very desirable that some should be sent home, to show what quality can be grown in this country; if Mr. Bruce could cultivate, commercially, which is very different from a garden sample, such cotton yielding four maunds per puckah beegah, he will have solved the problem of the ability of India to compete with America. I do not think the seed forms more than two-thirds of the weight of the kupas, and if so, Mr. Bruce produces about 547 lbs. of kupas, or 182 lbs. of cotton per acre, whereas the American average is said to be 125 lbs. clean cotton per acre. I think the sample the best cotton I have seen in this country."

3. I have proposed to the Central Committee that specimens of this cotton be forwarded to the grand Exhibition of the Works of Art and Industry in London.

4. In conclusion, I beg to add an extract from Mr. Bruce's letter to my address, relative to the cultivation and out-turn of his experimental crop: "The seed from Coimbatore did not reach me before the middle of July last year. As a good deal of the season had passed away, and I could not get to Bundelkhund, I merely, by way of experiment, and to test the seed, had about a beegah of land in my compound sown. From the land being properly manured, ploughed and weeded, the produce turned out very favourable. Each plant had from 50 to 60 bolls or capsules during the first or autumn crop, and about the half of that number from the second or spring crop from the same plants

"I have collected altogether, up to the present time, about six maunds of kupas, or seed cotton, and expect from it about two maunds of cotton wool, and four maunds of seed. The produce would have been more favourable, but the great quantity of rain which fell here in the month of January, and the frost we had immediately after, injured not only the pods but the plants also."

I have, &c.

Cawnpore Collector's Office, (signed) *E. H. Morland*, Collector.
6 June 1850.

The following letters are written:—

(No. 1930.)

No. 256.

From *R. Thornton*, Esq., Assistant Secretary to the Government North Western Provinces, to the Secretary Agricultural and Horticultural Society, Calcutta.

Sir,

I AM directed by the Honourable the Lieutenant-governor to transmit to you the accompanying copy of a letter (No. 454) from the Collector of Cawnpore, dated the 6th instant, together with the specimens of Mexican seed cotton and cotton wool, produced by Mr. J. G. Bruce from seed received from Coimbatore, in Madras. The Lieutenant-governor requests that

Revenue Department.

I.
Bengal and
North Western
Provinces.

the cotton may be subjected to examination, and that such notice of the experiment, as may appear called for, may be inserted in the Society's Journal.

I am, &c.

(signed) *R. Thornton,*

Assistant Secretary to the Government N. W. P.

Head Quarters, 28 June 1850.

No. 257.

(No. 1931.)

From *R. Thornton, Esq.*, Assistant Secretary to the Government North Western Provinces, to the Collector of Cawnpore.

Sir,

Revenue Department.

I AM directed by the Honourable the Lieutenant-governor to acknowledge the receipt of your letter (No. 454) dated the 6th instant, and, in reply, to inform you that the specimens of Mexican seed cotton and cotton wool, received with your letter under reply, have been forwarded to the Agricultural and Horticultural Society at Calcutta for examination. The Society have been requested to insert in their Journal such notice of the experiment as they may consider it deserving of.

I am, &c.

(signed) *R. Thornton,*

Assistant Secretary to the Government N. W. P.

Head Quarters, 28 June 1850.

(True extracts.)

(signed) *W. Blackburn,*

Reporter of Proceedings.

EXTRACT from Revenue Narrative (No. 1), dated 11 April 1851.

Cotton.

Collection No. 4.

Report of Agricultural Society on musters of cotton. Para. 81 Rev. Nar., No. 3 of 1850; Rev. Pro., Nov. 1850, No. 313.

64. This paper contains a report of the Committee of the Agricultural Society in Calcutta on the specimens of Mexican seed cotton and cotton wool, produced by Mr. J. G. Bruce from seed received from the Government farm at Coimbatore. The report of the committee was very favourable.

EXTRACT from the Proceedings of the Honourable the Lieutenant-Governor of the North Western Provinces, Revenue Department, dated 23 November 1850.

No. 313.

From *James Hume, Esq.*, Honorary Secretary Agricultural and Horticultural Society, Calcutta, to *R. Thornton, Esq.*, Assistant Secretary to the Government North Western Provinces, Agra.

Sir,

I AM directed by the Agricultural and Horticultural Society to acknowledge the receipt of your letter, No. 1930, dated 28th June 1850, and of the specimens of Mexican seed cotton and cotton wool, produced by Mr. J. G. Bruce from seed received from the Government farm at Coimbatore; and to annex, for the information of the Honourable the Lieutenant-governor, an extract from the report of the Society's committee on these musters.

I may add, that the Society intend, on the recommendation of the committee, to transmit these, with a few other specimens of a superior description, for report to the East India and China Association.

I am, &c.

(signed) *Jas. Hume,*

Honorary Secretary A. and H. S.

Metcalfe Hall, Calcutta,
7 November 1850.

Cawnpore.

L. Samples 1, 2 and 3.

No. 1. Bolls; No. 2. Kupass; No. 3. Cleaned cotton.

SAMPLES of Bolls, Kupass, and Cleaned Cotton, raised at Cawnpore by Mr. J. G. Bruce.
See Letter from Mr. B. Thornton, Assistant Secretary North Western Provinces, dated
28 June 1850.

I.
Bengal and
North Western
Provinces.

BOLLS large and well filled; kupass very clean; the cotton, which has been divested of the seed, also very clean, and of good colour; staple fine, very beautiful specimens, and fully equal to the Chittagong. Valued at $5\frac{1}{2}$ d. per lb.

In regard to valuations on the above musters, we have been governed by the first seven months' prices of 1849, as being perfectly safe; while the excessive prices at present (September) ruling appear to be caused by actual short production in the United States, and by speculation in consequence. The valuations given are those of a competent party, of Manchester experience.

(True extracts.)

(signed) W. Blackburn, Reporter of Proceedings.

(No. 5 Y.)

EXTRACT from a General Letter from the Government of Bengal to the Honourable the Court of Directors, in the Revenue Department, No. 2 of 1852; dated 4 February.

Para. 55. The Sudder Board of Revenue submitted a copy of a communication from the superintendent of Darjeeling, containing an application for 2,000 rupees, which he intended to devote to the purchase and distribution of 20 maunds of acclimated Mexican cotton seed from Coimbatore, for which he had indented on Government, and soliciting authority to advance* 5,000 rupees in the shape of tuccaveeto industrious settlers in the Morung, with the view of encouraging an improved and increased cultivation of cotton and other products there.

Darjeeling.

Dr. Campbell's indent for Mexican cotton seed, and his application to be authorised to make an advance to settlers in the Morung in the shape of tuccavee.

Rev. Pro. 27 August 1851, Nos. 108 and 109; 8 October 1851, Nos. 7 and 9; 12 November 1851, Nos. 2 and 3, and Nos. 66 and 68; 10 December 1851, Nos. 40 and 44; 26 December 1851, Nos. 15 and 16.

56. The Board were informed in reply, that the Deputy-governor authorised the superintendent of Darjeeling, as an experimental measure, to make tuccavee advances through the chowdries to the extent of 5,000 rupees, repayable at fixed seasons, with interest at five per cent. per annum, and that whatever might be the expense of getting the cotton seed from Coimbatore to Calcutta, it would be defrayed by Government direct from this office. The seed, it was intimated, had arrived in Calcutta, and Dr. Campbell had been informed by a letter from this office direct, that it would be forwarded by steamer as far as practicable, the arrangement for its transport by land being left to the suggestion of that officer. If any expense was necessary for that purpose, it was observed to the Board that it could be sanctioned hereafter, though the Deputy-governor could not perceive what other expenses were needed, except as regarded the above contingency.

57. It was further intimated to the Board, that if there should be any further expenses, application should be made previously for permission to make disbursements, when the Deputy-governor would be prepared to sanction any distinct items of expenditure on that account which might be reasonable and necessary, and which the Board might recommend.

58. At the suggestion of Dr. Campbell, the seed was subsequently forwarded by steam to the care of the collector of Purneah, with whom that officer had arranged for its transport to Darjeeling.

EXTRACT from the Proceedings of the Government of Bengal, in the Revenue Department, under date 27 August 1851.

(No. 412 of 1851.)

No. 108.

From A. Campbell, Esq., Superintendent of Darjeeling, to J. P. Grant, Esq., Secretary to the Government of Bengal, Fort William.

Sir,

TAKING Dr. Knight's experience as my guide, I believe that the surest mode of introducing improved sorts of cotton into the Morung will be to procure acclimated Mexican and other

* Originally proposed in his Revenue Report on the Sikhim Morung for the year 1850-51. See Pol. Pro. 30 July 1851, Nos. 97 to 100.

I.
Bengal and
North Western
Provinces.
—

other seaboard cotton seeds for distribution and trial. I have therefore the honour to solicit the assistance of Government in this matter, as the only means, I believe, of obtaining the seeds in question in sufficient quantity. I should like, if possible, to procure 20 maunds of the best acclimated seed of at least eight generations from Dr. Wight direct, so as to reach Titalyah in all February or March next. If the seed is carefully packed in tins, each containing 15 seers, sent to Galle, and thence brought to Calcutta in one of the Oriental and Peninsular Company's steamers, I shall arrange for its speedy transmission hither on being advised of the steamer by which it may be expected.

I have, &c.
(signed) *A. Campbell*, Superintendent.

Superintendent's Office, Darjeeling,
14 August 1851.

No. 109.

(No. 226.)

From *W. Seton Karr*, Esq., Under Secretary to the Government of Bengal, to *T. Pycroft*, Esq., Secretary to the Government of Fort St. George.

Revenue.

Sir,

I AM directed by the Deputy-governor of Bengal to request that, with the permission of the Right honourable the Governor in Council, instructions may be issued to the superintendent of cotton plantations at Coimbatore to procure 20 maunds of acclimated Mexican and other seaboard cotton seeds of at least eight generations, packed in tins of 15 seers each.

2. The seed which is intended for trial in the Sikkim Morung should reach Calcutta in February or March next, by one of the Peninsular and Oriental steamers, addressed to this office.

Fort William,
27 August 1851.

I have, &c.
(signed) *W. Seton Karr*,
Under Secretary to the Government of Bengal.

(No. 227.)

COPY forwarded to the superintendent of Darjeeling with reference to his letter, No. 412, of the 14th instant.

EXTRACT from the Proceedings of the Government of Bengal, in the Revenue Department, under date 8 October 1851.

No. 7.

(No. 475.)

EXTRACT of a Letter from the Officiating Secretary to the Board of Revenue, Lower Provinces, to *J. P. Grant*, Esq., Secretary to the Government of Bengal, Revenue Department.

3. In the seventh para. of his letter the superintendent trusts that the Board will recommend that the sum of 2,000 rupees be placed at his disposal, for the purchase and distribution of acclimated cotton seed; and in the eighth para. he suggests that he be authorised to make tuccavee advances to the extent of 5,000 rupees, to be disposed of as suggested in your letter of the 29th July, and to be repayable at fixed seasons, with interest not exceeding five per cent. We would make the chowdries the medium of these advances, taking care, in every case of disbursement, to satisfy himself as to the character, habits, and position of the individuals who may be recommended by them, and making them (the chowdries) responsible for the security of the amount advanced.

4. It appears that Dr. Campbell has already asked the assistance of Government to procure him 20 maunds of acclimated Mexican seed, and the Board presume that it is to defray the expenses of this indent that he requires money. But the Board observe that 2,000 rupees seems an unnecessarily large sum for the purpose. They would recommend that, in the first instance, Dr. Campbell should be authorised to disburse only sufficient to cover the expense of the indent which he has made, and that he be requested to submit an estimate of what that expense is likely to be, and to explain in what manner he proposes to lay out the remainder of the sum which he has asked for "to be devoted to the purchase and distribution of cotton seed."

5. With reference to the proposed disbursement of 5,000 rupées in the shape of tuccavee, the Board understanding from your letter above referred to that his Honour is prepared to consider favourably of such a proposition, have only

only to remark that the plan on which Dr. Campbell proposes to make the advances seems unobjectionable, and that they are not disposed to demur to the experiment being tried.

I.
Bengal and
North Western
Provinces.

I have, &c.
(signed) *A. C. Bidwell*,
Fort William, 19 September 1851. Officiating Secretary.

(No. 419.)

No. 8.

EXTRACT of a Letter from *A. Campbell*, Esq., Superintendent of Darjeeling, to the Officiating Secretary to the Board of Revenue, Fort William.

7. Regarding the increase and improvement of the cotton cultivation, I am still sanguine. I believe, if we can get acclimated Mexican and New Orleans seed from Dr. Wight, of Coimbatore, in sufficient quantity, that we may succeed in improving the staple greatly, and I am sure that the quantity may be increased by the judicious outlay of some capital to the Meches and Dhimals, if not by inducing the Dhaugurs of Chota Nagpoor to settle in the cotton tracts; I should, however, prefer that the improvement of the staple by Government may induce private individuals to try the extension of the cultivation, and in the meantime I hope that the Board will recommend Rs. 2,000 to be placed at my disposal for the purchase and distribution of acclimated seed, to which alone I would confine my cotton operations until a crop, or crops, from the new seed may be procured; after which I should be disposed to advance money for the purpose of increasing the improved kinds only, if private enterprise did not take the matter up. I have the honour to annex copy of an application to Government for seed, of the 14th instant, No. 412, for the Board's information.

8. Regarding my proposition to lay out three years' revenue in advances for clearing and cultivating the forest, and the further information required by the Board, I beg leave to state that at the time I proposed it, I fully felt the difficulties which would attend the execution of an excellent plan. I know that if I was proprietor of the Morung, with capital to work it, one of my first steps would be to lay out money in the way proposed, and what would be the interest of a proprietor becomes equally so that of Government under all the existing circumstances in this tract of country; but the great difficulty lies in a Government officer making advances of Government money, so as at the same time to secure them, and his own credit for the judicious disposal of his trust. After considering the matter in many lights, I am disposed to think that the safest and most effectual mode will be to make the chowdries the media of advances, taking care in every case of disbursement to satisfy myself as to the character, habits, and position of the individuals who may be recommended by the chowdry, and for whom he is to be security in the amount advanced. I shall, therefore, be glad if the Board will procure the sanction of Government to Rs. 5,000 to be at my disposal for advances, and to be disposed of as suggested in Mr. Grant's letter to your address of the 29th July, No. 164, "in the shape of tucavee repayable at fixed seasons with moderate interest." The interest not to exceed 5 per cent.

I have, &c.
(signed) *A. Campbell*,
Superintendent's Office, Darjeeling, Superintendent.
18 August 1851.

(No. 1275.)

No. 9.

From *W. Seton Karr*, Esq., Under Secretary to the Government of Bengal, to
A. C. Bidwell, Esq., Officiating Secretary to the Board of Revenue.

Sir,

I AM directed by the Deputy-governor of Bengal to acknowledge the receipt of your letter, No. 475, dated the 19th ultimo, and with reference to a sum of Rs. 2,000 required by the superintendent of Darjeeling, for the purchase and distribution of acclimated cotton seed, to state that an application has already been made to the Madras Government at the instance of that officer, made direct to this Government, for 20 maunds of acclimated Mexican cotton seed. His Honour consequently does not perceive for what object the proposed outlay is intended, and he is unable to sanction it without further explanation.

Revenue.

2. His Honour authorises the superintendent of Darjeeling, as an experimental measure, to make tucavee advances through the chowdries to the extent of Rs. 5,000, repayable at fixed seasons, with interest at 5 per cent. per annum.

3. The enclosure received with your letter is herewith returned, a copy having been kept for record.

I have, &c.
(signed) *W. Seton Karr*,
Fort William, 8 October 1851. Under Secretary to the Government of Bengal.

I.

Bengal and
North Western
Provinces.

No. 2.

(No. 1045.)

EXTRACT from the Proceedings of the Government of Bengal, in the Revenue Department under date 12 November 1851.

From *T. Pycroft*, Esq., Secretary to the Government, Fort St. George, to *J. P. Grant*, Esq., Secretary to the Government of Bengal.

Sir,

Revenue Depart-
ment.

WITH reference to Mr. Seton Karr's letter of the 27th August 1851, No. 226, I am directed by the Right honourable the Governor in Council to forward copy of a communication from Dr. Wight, relative to the cotton seed required for experimental purposes in the Sikkim Morung, and of the instructions issued thereon.

I have, &c.
(signed) *T. Pycroft*,
Secretary to Government.

Fort St. George, 21 October 1851.

No. 3.

From Dr. *R. Wight*, Superintendent Cotton Experiments, Coimbatore, to *T. Pycroft*, Esq., Secretary to Government, Fort St. George.

Sir,

ADVERTING to extract from the Minutes of Consultation, under date the 12th September 1851, I have the honour to report that I have this day dispatched to the collector of Sea Customs, Madras, for transmission to the Bengal Government, 1,500 lbs. of acclimated Mexican and 300lbs. of Bourbon cotton seed, with a request that he should pack and dispatch them in tins of 15 seers each, as requested by Mr. Under Secretary Seton Karr.

It may be as well to mention that the Mexican seed now sent was not Government property, but had to be purchased to meet this requisition from Bengal. The price charged for it is 10 rupees per candy of 500 lbs. The Bourbon, being now in general cultivation, is cheaper, being only about five rupees the candy.

I have, &c.
(signed) *Robert Wight*,
Superintendent Cotton Experiments.

Coimbatore, 3 October 1851.

EXTRACT from the Proceedings of the Government of Bengal, in the Revenue Department, under date 26 November 1851.

No. 15.

(No. 551.)

From the Officiating Secretary to the Board of Revenue, Lower Provinces, to *J. P. Grant*, Esq., Secretary to the Government of Bengal, Revenue Department; dated Fort William, 7 November 1851.

Sir

Land Revenue.

Present:
E. M. Gordon, esq.

WITH reference to para. 1 of the Orders of Government, dated the 8th ultimo, No. 1275, I am directed by the Board of Revenue to submit, for the consideration and orders of the Honourable the Deputy-governor, a copy of a letter from the superintendent of Darjeeling, No. 518, dated the 28th ultimo, containing further explanation relative to his application for a sum of 2,000 rupees, to be devoted to the purchase and distribution of cotton seed.

I have, &c.
(signed) *A. C. Bidwell*,
Officiating Secretary.

(No. 518 of 1851.)

From *A. Campbell*, Esq., Superintendent of Darjeeling, to the Officiating Secretary, Board of Revenue, Lower Provinces, Fort William.

Sir,

Revenue Depart-
ment.

I HAVE the honour to acknowledge the receipt of proceedings of the Board, No. 383, dated 17th instant, with copy of a letter from the Under Secretary to the Government of Bengal to your address, No. 1275 of the 8th of October, and of your letter to the Secretary to the Government of Bengal, of the 19th September, No. 475, to which the former is a reply.

2. With reference to my application for 2,000 rupees, to be devoted to the purchase and distribution of cotton seed, it was, as presumed by the Board, to defray the expenses of my indent for seed already made on the Government, and for any further supplies I might require.

3. I do

3. I do not require the advance of this amount, except as sums may be necessary to pay actual expenses, but it is the total extent to which I desired to have the sanction of Government for the purpose indicated. I do not at all know what may be the charges on getting seed from Coimbatore, and there may be some petty additional sums for carriage of seed from the Agricultural Society of Calcutta, but as far as it will depend upon me they will be as low as possible.

4. If, however, it is preferable to the Board to have the bills for charges submitted for its sanction, without procuring the previous sanction of Government to any specific sum, it will equally suit me, so long as I know that the necessary disbursements may be made in advance.

Superintendent's Office, Darjeeling,
28 October 1851.

I have, &c.

(signed) *A. Campbell*, Superintendent.

Board of Revenue, L. P., Fort William,
7 November 1851.

(A true copy.)

(signed) *A. C. Bidwell*, Offg. Secy.

(No. 1464).

No. 16.

From *W. Seton Karr*, Esq., Under Secretary to the Government of Bengal, to
A. C. Bidwell, Esq., Officiating Secretary.

Sir,

I AM directed by the Deputy-governor of Bengal to acknowledge the receipt of your letter, No. 551, of the 7th instant, and to inform you that whatever may be the expense of getting the cotton seed from Coimbatore to Calcutta, it will be defrayed by Government from this office direct. The seed has arrived in Calcutta, and Mr. Campbell has been informed, by a letter direct from this office, that the seed will be forwarded by steamer as far as possible, and that he is to suggest what arrangement he can make for its transport by land. If any expense is necessary for this purpose it can be sanctioned hereafter. But his Honour does not perceive what other actual expenses there need be, except as regards the above contingency.

2. If there should be any other expenses, application should be made previously for permission to make disbursements, and his Honour will be prepared to sanction any distinct items of expenditure on this account which may be reasonable and necessary, and which the Board may recommend.

I have, &c.

(signed) *W. Seton Karr*,
Under Sec. to Govt. of Bengal.

Fort William,
19 November 1851.

Home Department.—(No. 56 of 1848.)

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

WE have the honour to forward for your information the accompanying copies of papers regarding an improved cotton cleaning machine invented by Mr. Mather.

2. This gentleman was employed by the Government of the North Western Provinces on a salary of 300 rupees a month, to make up a dozen of the new machines for introduction into those provinces, and for a connected statement of his proceedings we beg to refer your Honourable Court to a report from Mr. Simms, dated the 7th of August last. An expense of 4,080 rupees has been incurred on the construction of the 12 machines intended for Agra. Mr. Simms has explained the causes which induced so unexpectedly large an expenditure,

I.
Bengal and
North Western
Provinces.

and we are assured that the cost of constructing others will not exceed 60 rupees each, provided 50 be made at the same time. The delay in the completion of the machines was attributed to the very great difficulty in ensuring the attendance of workmen at the Fort Gloster Mills, where Mr. Mather was carrying on his work. He has now been permitted to remove his work to the Iron Bridge Manufactory at Calcutta, where he will not only be able to command more regularity of attendance on the part of workmen, but will possess other facilities for prosecuting his task.

3. The Governor-general has witnessed the experimental working of one of these machines, and has stated his opinion that, so far as he could judge, it seemed calculated to effect the desired object, and was certainly much superior to any which he saw placed in competition with it. Attaching much importance to the introduction of improvements in the cleaning of cotton in India, we have authorised Mr. Mather to construct a few more sets of the machine, and as they are completed, we propose to forward them for trial in the cotton-growing districts under the several presidencies.

4. In consideration of the circumstances represented in his letter, dated the 28th ultimo, and in the 14th para. of Mr. Simms's report, dated the 7th August last, we have granted Mr. Mather, while he is employed upon this work, a salary of 400 rupees a month, commencing from the present date, up to which time he will continue to draw his allowance from the Agra Government.

We have, &c.
(signed) T. H. Maddock.
F. Millett.
J. H. Littler.

Fort William, 21 October 1848.

From *F. W. Simms*, Esq., Consulting Engineer to the Government of India, and Director of the Railway Department, to *G. A. Bushby*, Esq., Secretary to the Government of India.

Sir,

In accordance with your wishes, I have examined the plans of the proposed cotton-cleaning machines laid before me by Mr. J. H. Mather, the mechanical engineer, and have to submit the following remarks:

1. The original native machine for cleaning the cotton called the churka appears not to be badly adapted for the purpose, and with the alterations and additions proposed, and now being applied thereto by Mr. Mather, promises, in my opinion, to correct its defects, and supply what is wanting to make it effectually answer. As it now stands, it frees the cotton from the seeds effectually, but does not remove the bits of leaves and other trash which it contains, and which it is necessary to remove to render the article marketable. I would also notice that the 4-threaded endless screw, for driving the upper roller, is an objectionable application.

2. The machine constructed at Manchester, which Mr. Mather called "Mr. Potter's," I have also seen. It has a defect which the native churka is free from, namely, the large size of the wooden roller, which allows of many of the seeds passing through them with the cotton (arising from the seeds varying in size); these mostly get crushed in the passage, and the oil (as I suppose) being liberated, stains a considerable portion of the cotton in which they have been crushed; besides this, the seeds are lost, and their fragments have also to be separated, in addition to the beforenamed extraneous matter. The above is not the only defect in this machine: the arrangement of the screws, &c., for pressing down the upper roller is bad, and the bearings for the shafts are deficient.

3. The new arrangement of the churka now being made by Mr. Mather was lastly brought to my notice, and appears to be very important; the chief alterations are the following: A decrease in the size of wooden roller to nearly the mean diameter of that in the native churka, which I expect will ensure a perfect disengagement of the cotton seeds without injuring them, so that they will all be available for further cultivation. Also the introduction of a fan, with brushes attached to its arms, and adjusted to touch the roller three-quarters of an inch below the line of contact of the two rollers through which the cotton passes, thus avoiding the shortening or tearing of the staple. Next the iron grid placed below the brush fan, through which the dust and refuse fall away from the cotton. The boxing-up of the machine, and making it deliver the cleansed cotton into an adjoining room; and, lastly, the introduction of weights for pressing down the upper roller instead of screws, &c.

I would also observe, that the arrangement of the spur-wheel, and pinion of the new machine for communicating motion, is infinitely preferable to the endless screw of the original churka.

With

With the above alteration and arrangements I expect that the machine will be found to answer all the purposes desired, but it would be advantageous if the Honourable the Lieutenant-governor of the North Western Provinces would direct that a supply of seed cotton (or kupas), not less than three maunds, be forthwith remitted to Calcutta, to determine by actual experiment the real merits of the machine before it leaves the workshop, that any alteration suggested thereby may be made.

Calcutta, 10 January 1848.

I have &c.
(signed) *F. W. Simms, C. E.*

From *F. W. Simms, Esq.*, Consulting Engineer, to *G. A. Bushby, Esq.*, Secretary to the Government of India.

Dear Sir,

YESTERDAY I visited Fort Gloster, and examined into the progress of Mr. Mather respecting the cotton cleansing machine for the Government of the North Western Provinces, and I have much pleasure in reporting that one of them is complete, and appears to answer admirably; the remainder are in an advanced state. I enclose for your information a report by Messrs. Munro and Morrison, whom as practical men lately arrived from England, I requested to give me their opinion upon the cotton when turned out from the churka. As respects the exhibition of the machine as proposed by you, the arrangements Mr. Mather is making are very suitable, and I think your suggestion of asking the Governor General to witness the exhibition will be very desirable, as I feel confident that it will be satisfactory to his Lordship.

I remain, &c.
(signed) *F. W. Simms, C. E.*

Messrs. *W. Munro* and *A. Morrison*, Carding and Spinning Masters, to *F. W. Simms, Esq.*, Consulting Engineer to the Government of India.

Sir,

WE have very carefully examined the small cleaning machine for cotton which has lately been made up at these mills for Government, and it appears to be a very considerable improvement on the native Indian churka, which we have also seen at work.

The cotton turned out from the native churka is always in a matted state, and the fibres lying confused in different directions, and when it comes to the mill the carder has a good deal more trouble with it than he has with the American cotton used in England, which always comes to hand with the fibres lying in the same direction, or nearly so; there is also a good deal of dirt and waste always to be found in the cotton cleaned by the Indian churka, which defies all our endeavours to remove.

This new machine, however, has the great advantage of having a fan attached to it, on the arms of which strong whalebone brushes are fixed, and beneath the fan is a light iron grating. The action of the brushes not only serves to shake out the dirt, &c., from the cotton, but it also has the effect of opening out the fibres, and laying them similar to the American cotton noticed, and delivering it in a state far better suited for the carding engine than that cleaned by the churka.

We have seen a considerable quantity of seed cotton passed through the new machine; it was, however, the cotton of an old crop which had become parched and dried, and was, therefore, much more difficult to separate from its seed than the cotton of the current crop would be. But notwithstanding this serious disadvantage, we fully consider that the new machine turns out cotton quite as clean as it is desirable to have it brought to the mill, and that any further expense in picking it over with the hand, or applying additional machinery to it would be quite thrown away, and as regards the straightness of the fibres would be probably injurious.

We are, &c.
(signed) *W. Munro*, Carding Master.
A. Morrison, Spinning Master.

Fort Gloster Mills,
9 February 1848.

From *J. H. Mather, Esq.*, Civil Engineer attached to Government Cotton Experiments, North Western Provinces, to *G. A. Bushby, Esq.*, Secretary to the Government of India.

Sir,

WITH reference to the work on which I am at present engaged for the Government of the North Western Provinces, and which has been frequently brought to your notice during the last two months, I have now the honour to request that copies of the papers relating to the improvements which I have lately introduced into cotton-cleaning machinery, including the several reports thereon furnished for the information of his Honor the Lieutenant-Governor,

I.
Bengal and
North Western
Provinces.

Governor North Western Provinces, by Mr. F. W. Simms, Consulting Engineer to the Government of India, may be forwarded to the local Governments of Bengal, Madras, and Bombay.

I have, &c.

(signed) *J. H. Mather,*

Civil Engineer attached to Government Cotton Experiments,
North Western Provinces.

Fort Gloster Mills,
23 February 1848.

From *G. A. Bushby*, Esq., Secretary to the Government of India, to Secretaries to the Governments of Bengal (No. 278), Fort St. George (No. 230), and Bombay (No. 231).

Sir,

Home Department.
Madras and Bom-
bay. Honourable
the Governor in
Council.

I AM directed to transmit for the information of the Right Honourable the Governor, the accompanying copies of papers respecting a new cotton machine, or "improved Indian churka," invented by Mr. J. H. Mather, Civil Engineer, for the experimental cotton works in the North Western Provinces.*

I have, &c.

(signed) *G. A. Bushby,*

Secretary to the Government of India.

Fort William,
4 March 1848.

(No. 3762.)

From *C. Allen*, Esq., Officiating Secretary to Government in the North Western Provinces, to *G. A. Bushby*, Esq., Secretary to the Government of India, Home Department, Fort William.

Sir,

Revenue Depart-
ment.

In my predecessor's letter to you, dated May 19th last, the measures were detailed, which had been taken to bring to a close the operations connected with the experimental cultivation of cotton.

2. Advertence, however, was not then had to that branch of the operations which contemplated the improvement of the machinery in use for cleaning the cotton.

3. In the letters noted in the margin,† the employment of Mr. Mather, an experienced mechanic, was reported to the Supreme Government. After several attempts on the part of that gentleman to improve the machinery here, a committee of scientific officers at Agra, who examined his machines, recommended that he should be allowed to proceed to Calcutta to superintend their construction at that city, with the superior means and appliances for such works which Calcutta affords.

4. Mr. Mather accordingly proceeded by dawk at the public expense to Calcutta, in October last. He was placed officially under the Mint Master, then Colonel Forbes, who was succeeded by Major Green.

5. Mr. Mather's proceedings in Calcutta were supervised by yourself and also by Mr. Simms, as well as by Major Green. On the official recommendation of the last mentioned officer, the constructions at Fort Gloster of 12 machines at 120 rupees each was sanctioned, being in all 1,440 rupees. It was expected that they would be ready early in the year, so as to be in time to be of service in the manufacture of last year's cotton.

6. On the dates noted in the margin, seems to be total amount of 2,000 rupees were advanced to Mr. Mather, but no intelligence has yet been received of the completion or success of the machine. The Lieutenant Governor therefore feels it incumbent on him to bring the subject officially under the notice of the Right Honourable the Governor-general in Council.

7. There can be no doubt of the importance of improving the machinery used for cleaning cotton, and the Honourable the Court of Directors have expressed themselves always in the most favourable terms on this subject. From what the Lieutenant Governor has witnessed here, he is convinced that without some such means of reducing the great cost of cleaning the cotton and separating it from the seed, cotton can never be profitably grown in this country for the British market; still, the construction of these machines has ceased to be an object of peculiar and immediate importance to the Government of these provinces, and the
Lieutenant

* Letter from Mr. F. W. Simms, dated 10 January 1848. Extract ditto, dated 11 February, and Enclosure from Messrs. Munro & Morrison, dated 9th idem. Letter from Mr. Simms, dated 26 February, and Enclosure from Mr. Mather, dated 23d idem.

† Mr. Assistant Secretary Shakespear's letter of 12 June 1847, No. 2517, para. 4. Mr. Secretary Thornton's letter of 29 July (No. 388 A or 3135).

1848:	Rs.
7 January -	1,000
18 February -	500
7 April -	500
	Rs. 2,000

Lieutenant Governor feels that he is unable at this distance to take on himself the responsibility for the further conduct of the work.

8. In laying these circumstances before the Right Honourable the Governor General in Council, the Lieutenant-governor solicits that measures may be taken in Calcutta for determining the value of Mr. Mather's labours, and the expediency of their further prosecution at the expense of the State.

I.
Bengal and
North Western
Provinces.

Agra, 13 July 1848.

I have, &c.
(signed) C. Allen,
Offg. Secy. to Govt., N. W. P.

(No. 650.)

From G. A. Bushby, Esq., Secretary to the Government of India to F. W. Simms, Esq.,
Consulting Engineer.

Sir,

I AM directed to transmit to you the accompanying copy of a letter from the Officiating Secretary to Government of the North Western Provinces, dated the 13th instant, No. 3762, on the subject of the cotton-cleaning machines under construction for that Government by Mr. Mather, at Fort Gloster, and to request that you will have the goodness to report, for the information of the Governor-general in Council, and for communication to the Lieutenant Governor North Western Provinces, on the present state of the work and the probable period of its completion, with your sentiments as to the time occupied, the expenditure incurred, and the results arrived at, so as to enable the Government to determine the value of Mr. Mather's labours, and the expediency of their further prosecution at the expense of the State.

Council Chamber, 22 July 1848.

I have, &c.
(signed) G. A. Bushby,
Secy. to the Govt. of India.

To G. A. Bushby, Esq., Secretary to the Government of India, dated Calcutta,
7 August 1848.

Sir,

I HAVE the honour to acknowledge the receipt of your letter (No. 650) of the 22d ultimo, (enclosing copy of a letter, No. 2762, of 13th ultimo, from the Officiating Secretary to the Government of the North Western Provinces), requesting me to report, for the information of the Governor General in Council, upon the cotton-cleaning machines now constructing by Mr. Mather at Fort Gloster Mills; their present state, probable period of completion, and my sentiments as to the time occupied, the expenditure incurred, and the results arrived at. A few days prior to the receipt of the above letter, I had again visited the works, to examine into the progress made subsequently to my last visit; and since then I have looked into the expenditure incurred, and, in obedience to your instructions, submit the following report:—

2. In my letter of 10th January last, after describing the peculiarities of Mr. Mather's machines as then submitted to my inspection, I recommended that a supply of kupas should be sent from Agra, for the purpose of testing the machines fully before they left the workshop, that any alteration suggested by such extended trial might at once be made, thereby affording an opportunity for still further improvements, as experience might suggest. This I deemed desirable, on account of the well known fact that no machinery has ever been made perfect at once, perfection only being arrived at step by step, as experience pointed out the improvements necessary to attain the result. The history of the present cotton-cleaning machine in no way differs from this general rule, for, upon the receipt of the kupas, the machines were subjected to as severe a trial as they would have been if regularly at work, when (after a few days) some defects in their design appeared, and Mr. Mather had to apply his ingenuity afresh to contrive a suitable remedy, which I expect he has succeeded in.

3. The machine, as described in my letters of 16th January and 11th February, performed its work admirably at the time of my visit to Fort Gloster Mills at that time, and so far as I could judge from the short trial I witnessed, bid fair to be quite successful, and, had no disappointment therein occurred, the whole 12 machines would have been speedily completed; but upon the arrival of the kupas from Agra, and the trial named in the last paragraph proceeded with, a certain defect began to show itself, which was not very likely to have been anticipated, even by experienced machinists, being of that kind that is only discoverable from practice. It consisted in a tendency in the machine, after working some time, to allow of some of the cotton seeds passing through the rollers, which was not at all the case during the short trial I had previously witnessed. The rollers, as then constructed, were of the same external dimensions as those of the common native churka of the North Western Provinces, viz., the upper roller of steel, was one-sixteenth of an inch larger in diameter in the centre than at its ends, and the relative proportion of the steel roller to the wooden

one was as one to two. Now, I have no doubt, that at the slow speed at which the native churka is worked by one hand of a man, whilst he feeds the machine with the other hand, this proportion of the rollers answers very well, but when worked at such a greatly increased velocity as Mr. Mather's machine was subjected to, a variation in the size and form of the roller was required to make it reject all the seeds from which it had stripped the cotton.

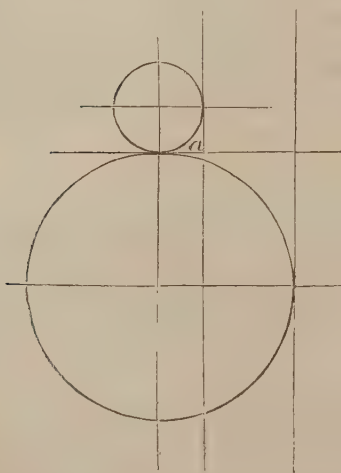
4. A long and tedious series of experiments were next tried by Mr. Mather to ascertain the cause of the above defect, and to supply a proper remedy for the same. Rollers of different sizes and of various relative proportions were applied (both of the wooden and the steel roller), and also the substitution of metal in place of wood for the lower roller. For this purpose cast iron, wrought iron, and brass were tried, but without success. The result of the whole appeared to indicate that the lower roller should have greater strength than those in the native churka, and that it be made as heretofore of wood and the upper one of steel, the latter being turned cylindrical instead of the swell in the centre, and likewise that that the relative proportion be in the ratio of 1 to 3.

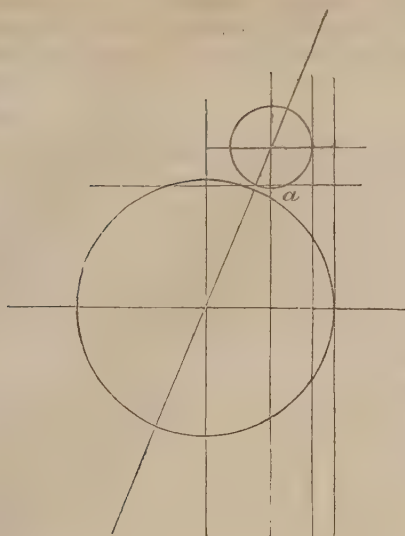
5. Another and important result of these experiments was the discovery that the same sized roller will not suit for cleansing all varieties of cotton. The size of the rollers, therefore, must be determined by the peculiarities of the particular cotton they are intended to clean. The above relative proportions, however, of one to three will most likely hold good in every case. The exact size of the rollers suitable for cleansing the short stapled and small seeded cotton of Agra, as determined by the above-named experiments, are one inch and a half diameter for the wooden (or lower) roller and half an inch diameter for the steel roller; and although the same sized rollers are not suited to all kinds of cotton, the machines themselves are suited to any sized rollers that are at all likely to be required; and therefore rollers of different sizes can easily be placed in the machines, in the event of their being removed from one district to any other, where cotton of a different quality and with different sized seeds is produced.

6. Besides a variation in the size of the rollers the experiments showed that an alteration was requisite in the mode of pressing the upper roller upon the lower. The system of weights at first adopted allowed of too much springing, and therefore recourse has been had to pinching screws. It also appeared that a similar pressure was required in the centre of the steel roller, which has been applied in a similar manner to the pinching screws over the bearings at each end. These and several minor alterations have been made as experience pointed out to be necessary.

7. The result of the trial I witnessed, on my recent visit to Fort Gloster Mills, was certainly satisfactory, although the wet weather was unpropitious for the purpose, the cotton having become damp, which is an unfavourable state to be separated from the seeds in. Nevertheless, the cotton was effectually stripped from the seeds, not one of which passed through the rollers; and the brush from within the case cleaned away the dirt and bits of seed, and at the same time opened out the cotton considerably, which is desirable for the subsequent processes it is subjected to before it reaches the carding machine. But I observed that, after the seeds had been stripped, they adhered to the rollers instead of readily falling into the receptacle prepared for them, the moment the last fragment of the cotton left them. This was attributed, by Messrs. Munro and Morrison, (the master carder and master spinner whom I named in my letter of 11th February, and who were also present on my last visit,) and also by Mr. Mather, to the cotton seeds being damp. If this be the case, nothing of the kind will happen in dry weather, which is stated to be the season when cotton is submitted to the cleaning process.

Whether the damp be the cause or not, it appears to me that the inconvenience may be got rid of by altering the relative positions of the two rollers. At present the upper one is placed vertically over the lower one, as in the annexed diagram. Now the lower roller being so much larger in diameter than the upper one, a considerable shelf, if I may so term it, is found at *a*, where the two rollers are in contact, and where the machine is fed with cotton. In the process of stripping the seeds they are drawn close into the line of contact of the rollers and there remain, instead of readily falling off as soon as they are cleaned. The damp, I dare say, assists them in clinging to the roller. This they do until they clog the whole line of contact for the entire length of the machine; and although they are easily removed with a piece of stick, yet it is an inconvenience which should be removed if possible. The damp weather has been assigned as the cause; but in this I do not fully concur. It may have much to do with it; but I think that the present position of the rollers has still more so. Now, if the upper roller, instead of being placed





placed vertically, was advanced forward as shown in the annexed diagram, so that a line passing through the centres of the two rollers should form an angle with the vertical of about 22 degrees, the shelf at *a* would be much diminished, and the tendency of the seeds to drop off at once from the roller be greatly increased. Mr. Mather agrees that this alteration is deserving of a trial, but cannot be done with the present machines, as it would involve so great an alteration in the frame as to require new castings, and likewise alterations in so many other parts, as would almost amount to remaking them. Under these circumstances I do not feel warranted in ordering it to be done, and therefore it must stand over for another opportunity. Mr. Mather states that it is absolutely necessary for some portion of a shelf to exist at *a*, to prevent the seeds from falling away before every particle of cotton is cleansed from them, or a loss of material would be the result; and likewise the upper roller must not be brought too far forward, otherwise the radius brush would be in contact with a large portion of the surface of the wooden roller, and thereby

I.
Bengal and
North Western
Provinces.

increase the friction of the machine, which would be decidedly objectionable. He admits that the shelf might be somewhat diminished in the way proposed, without detriment to the other parts of the machine; but states that it would be improper to remove it altogether. In this I agree with him; and consider that the inclination proposed above would answer all purposes, and therefore would recommend its trial upon the next machines that may be made.

8. At the time of my recent visit to Fort Gloster Mills, I had an opportunity of comparing the Agra cotton, after passing through the new churka, with a large quantity of ruhe (or cleaned cotton) purchased by the proprietors of the mills in the Calcutta bazars. I was told it was called Oomrawuttee cotton, grown, I believe, on the banks of the Nerbudda. This material had been so badly prepared for the market, that when it was ready for the carding machine, having passed through the machinery for opening it out and clearing it of dirt, that is, after it had passed twice through the willow and twice through the scuttling machine, and once through the lopping machine, five operations, all of which tend to remove the bits of leaves and other trash the cotton contains, it was by no means to be compared for cleanliness with the Agra cotton which had passed through the new churka only. In addition to making this comparison, I was informed by Messrs. Munro and Morrison that the Bombay cotton, in passing through their first pecking machine (that is, after it had been cleaned for market, in which state it comes to their hands), loses 10 per cent. more than the Agra cotton, after being cleaned by the new churka. To be certain that I had not misunderstood this matter, I have since applied to be furnished with this fact in writing, and I annex hereto a copy of Messrs. Munro and Morrison's letter to me on the subject.

9. Great credit is clearly due to Mr. Mather for his ingenuity and perseverance in contending with the numerous difficulties which have beset his progress. These have consisted very much in the want of the requisite appliances for the work, the lathes and other tools available at Fort Gloster Mills being unsuitable for the construction of small machines, and also in the strong prejudice workmen have to labour at that place, even on an increased rate of wages. Seldom would they remain more than a few days; and the attempt to restrain them by proceedings in the magistrate's court at Howrah proved of no avail, and, after the greatest exertion, the regular services of no more than two fitters could be secured. Under these circumstances, Mr. Mather (to my own knowledge) worked at the machines with his own hands, he having had the advantage of a practical training in his father's workshop at Liverpool. Four of the new machines have been altered as above described, and the remaining eight are undergoing a similar change, and I am assured they will be completed in about two months, provided no further disappointment takes place in respect of securing the services of the requisite workmen.

10. As respects the economy of working this machine, as compared with the native churka, I am unable to report, upon my own knowledge, because I do not know the cost of such work in the district where the cotton is produced; and to make a fair comparison between the new and the old churka, both machines should be worked a given time by the same men, or by men equally skilled in the process. Those people whose business it is to clean cotton, can feed the churka much more rapidly than can be done by a person unaccustomed to, or only partially experienced in the work; and therefore, until the whole 12 machines be fitted up as proposed, and put in motion, either by manual or animal power, as may be resolved upon, and also fed by hands experienced at the use of the old churka, I do not consider that a satisfactory comparative result can be arrived at. Mr. Mather, however, has given me the following particulars upon this part of the subject, which he states that he has confidence in:

I.

Bengal and
North Western
Provinces.

"The new machine is capable of turning out one maund of clean cotton per diem, at a cost of six annas per maund, the average out-turn of the ordinary machine being eight seers per day, at from 12 annas to one rupee per maund." If this statement be correct, the out-turn by Mr. Mather's machine will be five times as great as that by the native churka, and at a cost of only one-half.

11. The next point to be reported upon, is the time that has been occupied in the work. From Mr. Officiating Secretary Allen's letter, I learn that Mr. Mather was dispatched from Agra to Calcutta upon this business, in the month of October of last year; since which time full nine months have elapsed. The early part of this time must necessarily have been lost in travelling, making preliminary preparations, and securing a place to work in; for it should not be forgotten that there then existed no workshop, belonging to Government, fitted up with suitable tools, to which access could be obtained; and Fort Gloster Mills, with its imperfect appliances, was the only place available. Mr. Mather informs me that he reached Calcutta on the 15th of November, and duly reported his arrival to Lieutenant-colonel Forbes. After this, from a variety of causes over which he had no control, he received no funds from Government for commencing operations until 7th January following; but he had, in the month of December, purchased some tools and materials, and had patterns made, for which he advanced the money himself. Disturbances among the workmen at Fort Gloster then caused some further delay, and it was not until January that the work can be said to have been commenced. The superintendence of Mr. Mather's work came into my hands after the departure of Lieutenant-colonel Forbes for England, in December last, and I can safely state as my belief, that he has since then exerted himself with zeal and energy in the work, and that he has lost no time unnecessarily. I state this possessing a knowledge of his difficulties, and of the lengthy and tedious series of experiments he has instituted, as stated above in the 4th para., which occupied between two and three months. At a first view of the machine any person, unacquainted with the difficulty with which after repeated experiments (in which rollers of from 50 to 66 different forms were tried,) the most efficient proportions of its several parts have been discovered, might be disposed to think that more expedition could have been used in the matter, but that such is not the case is my sincere belief; for I know full well the difficulty of arriving at perfection in all new machinery, and too frequently it has happened that ingenuity and energy, after long exertion, have wholly failed of success. But such a result has not been the case here; for I believe it will be found that Mr. Mather has succeeded in producing a machine of great simplicity of construction, and effective in its operation.

12. The outlay incurred is the next point for consideration. Mr. Allen's letter states that the sum advanced by the Government of the North Western Provinces to Mr. Mather was as follows:

	<i>Rs.</i>
7th January 1848 - - - - -	1,000
18th February „ - - - - -	500
7th April „ - - - - -	500
Total - - -	<i>Rs.</i> 2,000

I called upon Mr. Mather for a statement of accounts to the present time, which he immediately furnished. The expenses commenced 24th December 1847, and are brought down in the statements to the 6th ultimo. A copy of this account is annexed hereto, and the following is an abstract thereof:—

	<i>Rs.</i>	<i>a.</i>	<i>p.</i>	<i>Rs.</i>	<i>a.</i>	<i>p.</i>
By materials and tools - - - - -	1,137	-	1			
Wages of workmen - - - - -	1,414	11	8			
Use of lathes, &c., at Fort Gloster - - - - -	362	13	3			
Miscellaneous petty expenses - - - - -	49	3	9			
				2,963	12	9
Messrs. Jessop & Co. for pullies and shafts to work the machine at Agra - - - - -				516	-	-
				3,479	12	9
Deduct by cash received from the Sub-treasurer at Fort William, as per Mr. Allen's letter above cited - - - - -				2,000	-	-
Balance due to Mr. Mather on 6th July 1848 - - -	<i>Rs.</i>			1,479	12	9

With the above account Mr. Mather produced vouchers for all the expenditure, except *Rs.* 86. 8. 0., most of which is for boat hire and miscellaneous expenses, for which no voucher can reasonably be expected. On the annexed copy of Mr. Mather's account I have ticked off with red ink all the items that have been vouched. The work executed by Messrs. Jessop & Co. was ordered by Mr. Mather upon the authority of a letter from Mr. Allen to him, dated 1st November 1847 (which is now before me), in the following words: "You are aware of what machinery there is at this station; whatever may be required in excess for working the 12 machines should be brought up by you." Taking into consideration the nature

nature of the work done, and the satisfactory manner in which it has been performed, the expenditure would certainly appear to be justified, and I would beg to recommend that the balance of Rs. 1,479. 12. 9. be paid to Mr. Mather, to whom it would doubtless be acceptable, receiving, as he does, no more than the very small salary of 300 rupees per mensem.

13. By the last para. it appears that, down to July 6th, the expenditure upon the 12 machines (independent of Messrs. Jessop & Co.'s charge, which I consider should not be reckoned into the cost, when speaking simply of the machines) was Rs. 2,963. 12. 9., and Mr. Mather estimates the further expense to complete the work at about 600 rupees, making a total outlay of Rs. 3,563. 12. 9. There are, however, the tools which have been purchased for the work still in existence, and they would be available for future work of the kind, and for such work may be valued at Rs. 303. 4. 0., but if offered for sale would probably not realise more than 150 rupees. Deducting Rs. 303. 4. 0. from the total estimated outlay, would leave Rs. 3,260. 8. 9., and this, divided by the number of the machines, gives for the estimated cost of each Rs. 271. 11. 5. The cost, however, of any similar machines that may hereafter be constructed, Mr. Mather states, and which I have no reason to doubt, will not exceed 60 rupees each, provided that not less than 50 of these are made at the same time, and with better facilities for the work than are afforded at Fort Gloster Mills. This latter condition can very readily be complied with now, by Government allowing the use of the workshops and tools of the Iron Bridge Foundry, in Calcutta, for that purpose, which would answer very well; and they are at the present either out of use, or very nearly so; and this arrangement would likewise get over the difficulty experienced at Fort Gloster in inducing mechanical workmen to stay there.

14. Before closing this report, I hope it will not be thought intrusive in me, at the request of Mr. Mather, respectfully to solicit the attention of Government to his present position. He states that he has been in the service of Government for 13 months, at the low salary of 300 rupees per mensem, and that he was induced to take this employment last year when he wanted to get away from Calcutta on account of ill health; that he only did so on the express understanding that, if successful, he was to be better paid. In confirmation of this, he has sent me the following extract from his letter accepting the appointment to Mr. H. H. Bell, then Government cotton agent at Agra, dated Calcutta, 19th April 1847: "These terms are scarcely higher than what I have formerly paid to English working mechanics in my employ in this country, and what is given to working engineers in the steamers in Calcutta; but I am induced to accept them, as your letter leads me to expect that, in case of success attending the experiments, I may hereafter look for an increase of salary." Besides having had a liberal education, Mr. Mather was trained to the business of a mechanist at his father's works at Liverpool, which, previous to its stopping, was one of our large engineering establishments, carrying on business under the name of Mather, Dixon & Co. He subsequently was employed in the locomotive departments of several of our railways, and, previously to his visiting Calcutta, was at Ceylon, and in the Madras Presidency, erecting mill-work, presses, and the like machinery. He came to Calcutta with the hope of finding an opening to engage in business on his own account, thinking that the then expected introduction of railways would occasion much business in his line. In this he has been disappointed. He lastly undertook the contriving and constructing his present cotton machines, as above stated, and has evinced therein much talent, ingenuity and perseverance. It is due to him also to observe, that whatever may be the ultimate value of his invention to the cotton trade of India, he has given the country the full benefit thereof without reserve, and he can never expect to reap any pecuniary advantages from the manufacture of these machines, on account of the low price at which they must be sold to ensure their general adoption in the country; and certainly his present salary cannot be considered an equivalent for such services. Therefore, whether the Government should resolve to proceed further with the construction of these machines, to distribute in various cotton districts, or should be pleased to let the subject rest where it is, I would in either case most respectfully recommend Mr. Mather to its favourable consideration.

15. Annexed to this report, in addition to the statement of accounts furnished by Mr. Mather, are copies of letters from Messrs. Munro and Morrison, the master spinner and master carder at Fort Gloster Mills, addressed to myself, respecting the cotton machines in question. I attach considerable weight to their opinions, from their known experience in such matters. I have also added copies of my former letters to you on this subject, which, being intended for the information of the Government of the North Western Provinces, were not, I believe, placed on record in your office, and, as they are referred to in this report, may be required for reference.

I have, &c.

(signed) *F. W. Simms*, Civil Engineer.

I.
Bengal and
North Western
Provinces.

Enclosure.

CONTINGENT BILL for Cotton Cleaning Machines constructed for the Government, North Western Provinces.

DATE.		Rs. a. p.
1847 :		
24 December	To 1 teak plank for pattern maker, 14 ft. by 1 ft. 2 in. - -	3 11 6
24 "	- 2 bars of iron, weighing seers 38. 8, and coolie hire - -	5 5 9
27 "	- 5 bars $\frac{3}{8}$ round iron, weighing mds. 1. 0. 8, at Rs. 4. 4. 2. per maund - -	4 4 9
27 "	- 4 bars $\frac{3}{8}$ Swedish iron, mds. 1. 37. 0, at Rs. 5. 4. per maund - -	10 1 9
27 "	- 2 bars $1\frac{1}{4}$ Swedish iron " 2. 2. 8, at Rs. 4. 14. per " - -	10 - 9
27 "	- 4 sheets iron, $\frac{1}{16}$ thick " 1. 23. 6, at Rs. 8. 4. per " - -	12 15 9
27 "	- 1 tool chest - - - - -	2 - -
27 "	- 7 vices - - - - - mds. 80. 12. - -	- - -
27 "	- 1 wrench - - - - - " 2. - -	86 10 -
27 "	- 1 hand vice - - - - - " 8. - -	- - -
27 "	- 6 hammers - - - - - " 3. 6. - -	- - -
28 "	- Coolie and cart hire - - - - -	- 13 -
29 "	- Dinghy and coolie hire to Fort Gloster - - - - -	1 - -
29 "	- Gocul Chunder Dam, for screws, &c., as per bill (1) - -	3 8 -
29 "	- Smith's coal, 20 maunds, as per bill (2) - - - - -	15 - -
29 "	- 1 sheet copper, seers 2. 13, at Rs. 1. 4. per seer - -	3 8 3
29 "	- Dinghy and coolie hire for coals and sundries to Fort Gloster - -	2 - -
29 "	- D. Razaris, for pencils and paper, as per bill (3) - -	6 1 -
29 "	- Fort Gloster Company's bill for casting, use of lathes, &c. (4) - -	27 13 3
1848 :		
4 January	- Cash paid advance to Loknat Ghose Turner, as per receipt (5) - - - - -	9 - -
4 "	- Cash paid for boat hire, and Mistry engaging workmen at Calcutta - - - - -	6 - -
5 "	- Boat hire - - - - -	1 - -
5 "	- Cash paid advance to Kalidoss Viceman, as per receipt (6) - -	2 - -
10 "	- Cash paid advance to Holledol Smith, as per receipt (7) - -	2 - -
11 "	- Boat hire - - - - -	2 - -
12 "	- Durwan to Calcutta, and coolie hire - - - - -	- 10 -
18 "	- T. Anthony, as per receipt (8) - - - - -	100 - -
20 "	- J. E. Thomson for tools and steel, as per bill (9) - - - -	78 12 -
31 "	- Workmen's wages for December and January, as per pay sheet A. - - - - -	76 11 8
4 February	- Thomas Wilson, as per bill (10) - - - - -	60 - -
18 "	- Thomas Wilson, as per bill (11) - - - - -	140 - -
19 "	- Sircar's bill for coolie hire (12) - - - - -	2 3 -
23 "	- Thomas Wilson, as per bill (13) - - - - -	70 8 -
29 "	- Workmen's wages for February, as per pay sheet B. - - -	104 2 -
1 March	- Boat hire for workmen to and from Calcutta - - - - -	2 14 -
1 "	- House rent for workmen at Fort Gloster - - - - -	2 - -
1 "	- Sircar and Durwan's batta to Calcutta - - - - -	1 - -
1 "	- Coolies for landing coal - - - - -	- 2 6
1 "	- Hard wood - - - - -	4 - -
23 "	- Issur Chunder Dutt, as per bill (14) - - - - -	93 3 3
23 "	- W. Mabout - - - - -	150 - -
31 "	- Workmen's wages for March, as per pay sheet C. - - -	111 14 9
5 April	- Iron wire 29 lbs., as per bill (15) - - - - -	5 7 -
8 "	- 20 pices of tin, as per bill (16) - - - - -	12 10 3
27 "	- Brushes for machines, as per bill (17) - - - - -	20 - -
30 "	- Fort Gloster Company's bill for castings, use of lathes, &c. &c. (18) - - - - -	776 3 10
30 "	- Thomas Wilson - - - - -	11 - -
30 "	- Workmen's wages for April, as per pay sheet D. - - -	77 12 2
17 May	- R. W. Watkins, as per receipt (19) - - - - -	150 - -
17 "	- Freight on wood for churka rollers from Agra (20) - - -	3 - -
31 "	- T. Reeves for lignum vitæ wood - - - - -	14 11 6
31 "	- Workmen's wages for May, as per pay sheet E. - - -	85 1 6
28 June	- R. W. Watkins, as per receipt (22) - - - - -	150 - -
30 "	- Workmen's wages for June, as per pay sheet F. - - -	94 11 9
6 "	- E. Thomson's bill for tools and materials (23) - - - -	297 14 -
6 "	- Obhoy Churren Sing, as per bill (24) - - - - -	50 6 3
TOTAL - - - Co.'s Rs.		2,963 12 9

E. E.

MEMORANDUM.

	<i>Rs.</i>	<i>a.</i>	<i>p.</i>
To expenditure incurred in the manufacture of 12 new churkas, and in a series of experiments connected therewith, as per account - - - - -	2,963	12	9
Add to this, cost of pulleys and shafting (ordered in accordance with the instructions contained in 5th para. Mr. Allen's letter to Mr. Mather, dated Agra, 1st November 1847, for working the machines by one power at Agra), as per Messrs. Jessop & Co.'s bill - - - - -	516	-	-
<i>Co.'s Rs.</i>	3,479	12	9
Deduct by cash received from the Sub-Treasurer, Fort William :			
1848.			
7 January - - - - -	1,000	-	-
18 February - - - - -	500	-	-
7 April - - - - -	500	-	-
Balance - - - - -			
<i>Co.'s Rs.</i>	1,479	12	9

E. E.

(signed) *J. Mather.*

(True copy.)
(signed) *B. Coomar.*

(No. 742.)

From *G. A. Bushby*, Esq., Secretary to the Government of India, to *G. Udny*, Esq.,
Sub-Treasurer.

Home Cons., 19
Aug. 1848, No. 35.

Sir,

UNDER the authority of the Governor-general in Council, I have the honour to request that you will advance, on the receipt of Mr. J. H. Mather, civil engineer, employed in constructing, experimentally, certain cotton-cleaning machines for the Government of the North Western Provinces, such sums of money as he may from time to time require, not exceeding in the aggregate 600 (six hundred) rupees. Home Department.

I have, &c.

(signed) *G. A. Bushby*,
Secretary to the Government of India.

Council Chamber,
19 August 1848.

(No. 741.)

From *G. A. Bushby*, Esq., Secretary to the Government of India, to Accountant to the
Government of Bengal.

Cons., 19 Aug. 1848,
No. 36.

Sir,

I AM directed to acquaint you, that a treasury order for *Rs.* 1,479. 12. 9. has been this day granted in favour of Mr. J. H. Mather, and that the sub-treasurer has been instructed to advance Mr. Mather a further sum, not exceeding 600 rupees, in such proportions as he may from time to time require, for the completion of his cotton-cleaning machines. Home Department.

2. The above sums are to be debited to the Government of the North Western Provinces.

I have, &c.

(signed) *G. A. Bushby*,
Secretary to the Government of India.

Council Chamber,
19 August 1848.

I.

Bengal and
North Western
Provinces.

(No. 733.)

From *G. A. Bushby*, Secretary to the Government of India, to the Military Board.Cons., 19 Aug. 1848,
No. 37.

Home Department.

Gentlemen,

THE Governor-general having authorised Mr. J. H. Mather, employed at Fort Gloster in constructing certain cotton-cleaning machines for the Government of the North Western Provinces, to remove his work to the Iron Bridge Manufactory, I am directed to request that your Board will have the goodness to issue the necessary orders to the Superintendent of the manufactory, to insure to Mr. Mather the benefit of the workshop and tools of the yard, as well as every facility in the completion of his work.

I have, &c.

(signed) *G. A. Bushby*,
Secretary to the Government of India.

Council Chamber,
19 August 1848.

(No. 634.)

Cons., 19 Aug. 1848,
No. 38.

Home Department.

* Dated 7th inst.

From *G. A. Bushby*, Esq., Secretary to the Government of India, to *J. H. Mather*, Esq.

Sir,

THE Governor-general in Council having had under consideration a report* from Mr. F. W. Simms on the cotton-cleaning machines under construction by you for the Government of the North Western Provinces, has determined that the experiment shall be carried to a conclusion, and has sanctioned the completion of the 12 machines now in hand.

2. You are authorised to remove your work to the Iron Bridge Manufactory, and the necessary orders will be issued to the Superintendent to insure you the benefit of the workshop and tools of that yard, as well as every facility in the completion of your work.

3. I have the honour to enclose a treasury order for *Rs. 1,479. 12. 9.*, balance of the expenses incurred by you up to the 6th ultimo, and to acquaint you that the sub-treasurer has been instructed to advance, on your receipt, a further sum not exceeding 600 rupees, in such proportions as you may require from time to time for the completion of your work; but it is hoped that the expenditure may possibly prove to be less, from the facilities which will be afforded to you by the transfer of your work to the Iron Bridge Yard.

I have, &c.

(signed) *G. A. Bushby*,
Secretary to the Government of India.

Fort William,
19 August 1848.

(No. 736.)

Cons., 19 Aug. 1848,
No. 39.

Home Department.

From *G. A. Bushby*, Esq., Secretary to the Government of India, to *F. W. Simms*, Esq.,
Consulting Engineer to the Government of India.

Sir,

THE Governor-general in Council having had before him your report, dated the 7th instant, on the cotton-cleaning machines under construction by Mr. Mather, at Fort Gloster, for the Government of the North Western Provinces, has determined that the experiment shall be carried to a conclusion, and has sanctioned the completion of the 12 machines now in hand. Mr. Mather has been instructed to remove his work to the Iron Bridge Manufactory, where he will have the benefit of the workshop and tools of that yard, and be able to command more regularity of attendance on the part of workmen.

2. In compliance with your recommendation, his Lordship in Council has authorised the payment to Mr. Mather of *Rs. 1,479. 12. 9.*, the balance of the expenses incurred by him up to the 6th ultimo. A further sum of 600 rupees has been placed at his credit for the completion of the work; but the expense it is hoped may prove to be less, with the advantage he will now have at the yard and workshop of the Iron Bridge Manufactory.

I have, &c.

(signed) *G. A. Bushby*,
Secretary to the Government of India.

Fort William,
19 August 1848.

(No. 639.)

From *G. A. Bushby*, Esq., Secretary to the Government of India, to *C. Allen*, Esq.,
Officiating Secretary to Government, North Western Provinces.

I.
Bengal and
North Western
Provinces.

Cons., 19 Aug. 1848,
No. 40.

Sir,

WITH reference to your letter, No. 3762, of the 13th ultimo, respecting the cotton-cleaning machines under construction by Mr. Mather, at Fort Gloster, for the Government of the North Western Provinces, I am directed to transmit, for the information of the Honourable the Lieutenant-governor, the accompanying copy of a correspondence with Mr. Simms, together with a copy of my note on the subject.

Home Department.

To Mr. Simms,
dated 22 ultimo.
From ditto, dated
7th inst.

2. The Governor-general in Council, having had the above papers before him, is willing that the experiment should now be carried to a conclusion, and has sanctioned the completion of the 12 machines in hand. Mr. Mather has been authorised to remove his work to the Iron Bridge Manufactory, where he will have the benefit of the workshop and tools of that yard, and be able to command more regularity of attendance on the part of workmen.

3. His Lordship in Council has authorised the payment to Mr. Mather of *Rs. 1,479. 12. 9.*, the balance of the expenses incurred by him up to the 6th ultimo, and a credit has been given him for a further sum of 600 rupees, for the completion of the work; but the expenditure may, it is hoped, be less, with the advantage he will now have at the yard and workshop of the Iron Bridge Manufactory.

I have, &c.

(signed) *G. A. Bushby*,

Secretary to the Government of India.

Fort William, 19 August 1848.

(No. 1725 of 1848.)

From *C. J. Erskine*, Esq., Deputy Secretary to the Government of Bombay, to *G. A. Bushby*,
Esq., Secretary to the Government of India.

Sir,

WITH reference to your letter, No. 231, dated the 4th instant, I have been desired to request that you will have the goodness to convey to the Right honourable the Governor-general of India in Council, the wish of the Honourable the Governor in Council to be supplied with 10 of the cotton-cleaning machines invented by Mr. Mather, in order that the opinions of the local officers of this Government may be obtained as to their utility.

Revenue Department.

I have, &c.

(signed) *C. J. Erskine*,

Deputy Secretary to Government.

Bombay Castle, 25 March 1848.

(No. 394.)

From Sir *H. C. Montgomery*, Bart., Secretary to the Government of Fort St. George, to
G. A. Bushby, Esq., Secretary to the Government of India.

Sir,

I AM directed to acknowledge the receipt of your letter, dated 4th March 1848, No. 230, and in conveying the thanks of the Right honourable the Governor in Council for the papers therewith received, respecting the new cotton-cleaning machine, or "improved churka," invented by Mr. Mather, to communicate at the same time the request of this Government to be supplied with two of the machines, to enable the officers engaged in the experimental cotton farms at this Presidency to form a practical opinion as to its merits, and with the view of procuring others hereafter, should that opinion warrant such a proceeding.

Revenue Department.

I have, &c.

(signed) *H. C. Montgomery*,

Secretary to Government.

Fort St. George, 17 April 1848.

From *J. H. Mather*, Esq., Civil Engineer, Superintending Government Cotton Experiments, to *G. A. Bushby*, Esq., Secretary to the Government of India.

Sir,

I HAVE the honour to request that you will bring the following statement to the notice of the Right Honourable the Governor-general in Council.

I.
Bengal and
North Western
Provinces.

2. On the 1st July 1848, I entered the service of the Government of the North Western Provinces, having been engaged for the purpose of superintending the introduction of an improved system of cleaning cotton by machinery in the North Western Provinces. I had previously been for three years employed in the erection and superintendence of cotton machinery, for private parties, in the Tinnevely district of the Madras Presidency, and had there, after numerous attempts to introduce the "American Saw-gin," found that it was quite inapplicable to the shorter descriptions of East Indian cotton, and that a machine on the principle of the East Indian churka was the only one which could be used without injury to the staple. I accordingly made a rough model of an improved churka, and on forming my engagement with the Government, North Western Provinces, I proposed to carry out my improvements still further: my plans, &c. were accordingly submitted to a committee of scientific officers, at Agra, who recommended the Lieutenant-governor to authorise me to proceed to Calcutta for the purpose of making up 12 of my new machines at one of the public workshops.

3. My salary was fixed in the first instance at 300 rupees per month, and I was induced to accept this amount (which was very considerably less than I had formerly realised either in England or in Tinnevely), on the strength of the understanding that if my plans were successful, I was to receive a suitable salary, and because I was assured by letters from my friends among the Cotton brokers and spinners of Liverpool and Manchester, that, owing to the great interest manifested in the subject of East Indian, by the Honourable the Court of Directors, I might depend on the warm support of the Government of India if my machines were successful.

4. I need not here detail my proceedings since my arrival in Calcutta from Agra, as they have repeatedly been under your immediate notice, and have moreover been lately reported on to Government by Mr. F. W. Simms, consulting engineer to the Government of India: my present object is to bring to the notice of Government, that since my arrival in Calcutta the Government cotton experiments in the North Western Provinces have been discontinued altogether, under special orders from the Honourable the Court of Directors, and that the late agent has written to inform me that my services (on the completion of the 12 machines now ready) will consequently not be required by the Government of the North Western Provinces, and that the Lieutenant-governor has expressed* a desire to transfer the further conduct of the work to the supreme Government.

* See Mr. Officiating Secretary Allen's letter to Mr. Secretary Bushby, dated Agra, 13 July, 1848, para. 7.

5. The cause of the discontinuance of the Government cotton cultivation North Western Provinces, is because the English spinners have most decidedly declared that the staple of the cotton grown near Agra is quite unsuited to the English market, and my own private letters from Manchester confirm this assertion; as, however, it is well known that decidedly better descriptions of cotton are grown on the banks of the Nerbudda, at Omrawuttee, Broach, Dharwar, Coimbatore, Tinnevely, &c. of the staple of which the English spinners report most favourably, and only complain of the inefficient manner in which such cotton is cleaned, and the consequent dirty state in which it reaches them; I am now especially desirous (should it meet with the sanction of the Right Honourable the Governor-general in Council) that sets of the new machines should at once be set to work in some of the above districts, with the view of demonstrating to the natives of the district, the fact that cotton cleaned by these machines will realise a better price than similar cotton cleaned in the ordinary manner, for it cannot be expected that the new machine will be adopted in India before this fact is most clearly and satisfactorily established in every cotton district.

6. The cotton cleaned by the new machine has already been reported on by practical men, brokers and spinners, as worth at least one rupee and a half (*Rs. 1½*) per maund more in the Calcutta market than similar cotton cleaned by the native churka.

7. Having heard from you that the Madras Government have expressed a desire to have a set of these machines sent to that Presidency, and having also been informed that the Commissioner of Dacca and the Governor-general's agent

agent in Assam, have both expressed similar desires; being also convinced that the machine cannot receive a fair trial at Agra, the cotton of which district the Manchester spinners will not use; and as the machines can just now be made up at a very reduced cost, on account of the tools, native workmen, &c., &c., hitherto employed, being still available; I would respectfully suggest that eight (8) sets of the new machines be made up at the Government iron bridge yard, Calcutta, under my superintendence and the general supervision of Mr. Simms, and that they be distributed among the best cotton-growing districts.

8. Though the machine fully answers my expectations, it is of course, like all new machinery, susceptible of such improvements as experience and practice alone can suggest, and I should therefore confidently expect, in making up more machines, to introduce some such improvements.

9. In conclusion, I would most respectfully solicit the attention of Government to the subject of my salary, which, as before stated, I was satisfied with so long as the success of my machine remained doubtful; but now that, after 14 months' continued experiments, I have, notwithstanding many difficulties, demonstrated to the satisfaction of the Government Engineer, Mr. Simms, the Calcutta merchants, and the European spinners, the success and efficiency of my new machine, I feel that I may reasonably request an increase of remuneration, my present salary being less than one-half of the salaries ordinarily paid to engineers of my own standing in India.

I have, &c.

Calcutta, 28 Sept. 1848.

(signed) *J. H. Mather*,
C. E. Supg. Govt. Cotton Experiments.

MINUTE by the Right Honourable the Governor-General of India.

I HAVE seen Mr. Mather's machines, and, so far as one can judge from merely experimental working, they seem calculated to effect their object, and are certainly much superior to any which I saw placed in competition with them.

Cotton cleaners.

It is of the utmost importance to the interests of India to hold out every possible encouragement to the introduction of improvements in the cleaning, conveyance, and management of cotton grown in India.

I am of opinion, therefore, that the Government should grant to Mr. Mather a salary of 400 rupees a month while he is employed.

The Government of Madras and Bombay should be requested to give full opportunity for the trial of these machines in the cotton districts within their respective limits.

At Dacca the cotton cultivation is in too discouraging a state to make it desirable to send a set of machines there at present.

In Assam, perhaps, there is a better opening; but at all events I would propose only to sanction his preparing machines with the means at his disposal, and to commission such numbers afterwards as the Government may desire to have, or be able to employ.

(signed) *Dalhousie*.

10 October 1848.

(No. 811.)

From *G. A. Bushby*, Esq., Secretary to the Government of India, Home Department, to
J. H. Mather, Esq.

Sir,

I AM directed to inform you that the Right honourable the Governor-general has noticed favourably the experimental working of your cotton-cleaning machine, as compared with those placed in competition with it, and that it has been resolved to authorise the construction at the Iron Bridge Manufactory of a few more sets of the machine, in order that their utility may be practically tested in the cotton-growing districts under the several Presidencies.

2. Instead of making up at once eight sets, as suggested in the 7th para. of your letter, the President in Council is of opinion that it will be preferable to begin with the construction

I.
Bengal and
North Western
Provinces.

tion of only so many as you can readily undertake with the means at your disposal, and within the estimated cost.

3. In consideration of the circumstances represented in your letter of the 28th ultimo, and by Mr. Simms in his report, dated the 7th August last, the Honourable the President in Council, with the concurrence of the Right Honourable the Governor-general, is pleased to sanction your drawing while you may be employed upon this work a salary of 400 rupees a month, commencing from the present date, up to which time you will continue to draw your allowance from the Agra Government.

4. You will continue to carry on your work under the supervision of Mr. Simms, who will in future be the channel of your communications with the Government.

I have, &c.

(signed) *G. A. Bushby*,
Secretary to the Government of India.

Council Chamber,
21 October 1848.

(No. 814.)

From *G. A. Bushby*, Esq., Secretary to the Government of India, Home Department, to
C. Allen, Esq., Officiating Secretary to Government of the North Western Provinces.

Sir,

IN continuation of my letter, No. 639, dated the 19th August last, I am directed to acquaint you, for the information of the Honourable the Lieutenant-governor, that the Right Honourable the Governor-general, after witnessing the experimental working of one of the cotton-cleaning machines invented by Mr. Mather, having come to the opinion that, so far as his Lordship could judge, it seemed calculated to effect its object, and was certainly much superior to any which he saw placed in competition with it, the President in Council, with the concurrence of his Lordship, has sanctioned the construction of a few more sets for the purpose of their being distributed for trial among the cotton-growing districts under the several Presidencies, and has granted Mr. Mather, while he may be employed upon this work, a salary of 400 rupees per mensem, commencing from the present date, up to which time he will continue to draw his allowance from the Agra Government.

2. Inquiry has been made as to the date by which the twelve machines intended for the North Western Provinces are likely to be ready for dispatch to Agra, and you will hereafter be apprised on that point.

I have, &c.

(signed) *G. A. Bushby*,
Secretary to the Government of India.

Fort William,
21 October 1848.

From *G. A. Bushby*, Esq., Secretary to the Government of India, Home Department, to
Secretary to Government of Bombay (No. 813); Fort St. George (No. 812.)

Sir,

MR. MATHER'S cotton-cleaning machine having been tested, and found to answer its purpose very well, so far as it was possible to judge from a merely experimental working. I am directed to acquaint you, that he has been instructed to construct a few more, and that ten* of these machines, as soon as completed, will be forwarded to Bombay, in compliance with the application contained in† *Mr. Deputy Secretary Erskine's letter*, No. 1725, dated the 25th March last.

* two. † Madras.
‡ your letter, No.
394, dated the 17th
April last.

I have, &c.

(signed) *G. A. Bushby*,
Secretary to the Government of India.

Fort William, 21 October 1848.

(No. 927.)

From *G. A. Bushby*, Esq., Secretary to the Government of India, Home Department, to
J. P. Grant, Esq., Officiating Secretary to the Government of Bengal.

Sir,

IN continuation of my letter, No. 278, dated the 4th March last, I am directed to acquaint you, that the Right Honourable the Governor-general, after witnessing the experimental working of one of the cotton-cleaning machines invented by Mr. Mather, having come to an opinion that, so far as his Lordship could judge, it seemed well calculated to effect its object, and is certainly much superior to any which he saw placed in competition with it, the President in Council, with the concurrence of his Lordship, has sanctioned the construction

of

of a few more sets, for the purpose of their being distributed for trial among the cotton growing districts, under the several presidencies; you are accordingly requested to state how many sets of machines will be required for the above purpose in Bengal.

I.
Bengal and
North Western
Provinces.

I have, &c.
(signed) *G. A. Bushby*,
Secretary to the Government of India.

Council Chamber, 21 October 1848.

(No. 925.)

From *G. A. Bushby*, Esq., Secretary to the Government of India, Home Department,
to the Military Board.

Gentlemen,

IN continuation of my letter, No. 733, dated the 19th August last, I am directed to acquaint you, that Mr. Mather has been authorised to continue at the Iron Bridge Yard the construction of his new cotton-cleaning machines, and to request that your Board will have the goodness to issue the necessary orders to insure him every facility in the prosecution of his work.

I have, &c.
(signed) *G. A. Bushby*,
Secretary to the Government of India.

Council Chamber, 21 October 1848.

(No. 926.)

From *G. A. Bushby*, Esq., Secretary to the Government of India, Home Department,
to *F. W. Simms*, Esq., Consulting Engineer to the Government of India.

Sir,

I AM directed to acquaint you that the Right Honourable the Governor-general having been favourably impressed by the experimental working of Mr. Mather's cotton-cleaning machine, as compared with those placed in competition with it, that gentleman has been authorised to construct, at the Iron Bridge Yard, a few more sets, in order that their utility be practically tested in the cotton-growing districts under the several Presidencies.

2. Mr. Mather suggested the construction of eight sets of the new machine, but has been informed that the President in Council considers it preferable that he should begin with only so many as he can readily undertake, with the means at his disposal, and at the estimated cost.

3. The Governments of Fort St. George and Bombay have applied, the former for two and the latter for ten of the machines, and others may hereafter be required. Mr. Mather therefore is to continue with his work till otherwise instructed, and I am directed to request that you will have the goodness to require from him a quarterly progress report, in order that Government may be kept apprised of the progress he is making.

4. The President in Council is desirous of being informed when the 12 machines, intended for the North Western Provinces, are likely to be ready for dispatch, as also the probable period by which, with the appliances Mr. Mather now possesses, and the facilities which he will command at the Iron Bridge Manufactory, he can complete eight more sets.

5. Under the recommendation contained in the 14th para. of your letter, dated the 7th August last, and in consideration of the circumstances represented by Mr. Mather in his letter, dated the 28th ultimo, the President in Council, with the concurrence of the Right Honourable the Governor-general, has been pleased to authorise Mr. Mather, while he may be employed upon this work, to draw a salary of 400 rupees per mensem, commencing from the present date, up to which time he will continue to draw his allowance from the Agra Government.

6. Mr. Mather has been instructed that he is to carry on his work under your supervision, and that you will be the channel of his communication with the Government.

I have, &c.
(signed) *G. A. Bushby*,
Secretary to the Government of India.

Fort William, 21 October 1848.

I.
Bengal and
North Western
Provinces.

Further proceed-
ings regarding the
construction of
cotton-cleaning
machines by
Mr. Mather.

EXTRACT from a Despatch from the Government of India to the Honourable the Court of Directors in the Home Department, dated 28 July 1849, No. 23.

15. IN continuation of letter No. 56 of 1848, dated 21st October, we have the honour to report the further proceedings regarding the construction of cotton-cleaning machines by Mr. Mather.* Twelve of the machines have been forwarded to Agra, and Mr. Mather has been authorised to construct eight more.

16. We passed a bill, amounting to 550 rupees, for boat-hire incurred by Mr. Mather while carrying on the construction of the machines in the Fort Gloster Mills; and orders have been issued to pay Mr. Mather any sums he may require from time to time, not exceeding in the aggregate 2,000 rupees.

EXTRACT from the Proceedings of the Honourable the President of the Council of India in Council, in the Home Department, under date 4 November 1848.

No. 60.

From *J. H. Mather*, Esq., Civil Engineer, Superintending Government Cotton Experiments, to *G. A. Bushby*, Esq., Secretary to the Government of India.

Sir,

I HAVE the honour to request that you will bring to the notice of Government the subject of my expenditure†, 550 Co.'s rupees, for boat-hire while carrying on the construction of cotton-cleaning machines for Government at Fort Gloster.

2. You are already aware that my original instructions directed me to construct the machines in question at the Mint workshops in Calcutta, but that, after the departure of Lieut.-Col. Forbes for England, I was instructed to carry out the work at the Fort Gloster Mills. The local position of the mills rendered it absolutely necessary for me to employ a boat for the due execution of my work.

3. The charge for boat-hire was accidentally left out in the accounts furnished by me up to 6th July last, which were forwarded to you through Mr. SIMMS, and I have now to request that you will submit the matter for the consideration of Government, with the view of my receiving compensation for the above-named expenditure.

4. I may further mention that my salary has not been sufficient to cover the extra expense incurred in consequence of the removal of the work to Fort Gloster, and that I have been obliged to meet the same from other sources.

I have, &c.

(signed) *J. H. Mather*, C.E.,

1, Hastings-street, Calcutta,
28 October 1848.

Superintending Government Cotton Experiments.

No. 65.

(No. 983.)

From *G. A. Bushby*, Esq., Secretary to the Government of India, Home Department, to *F. W. Simms*, Esq., Consulting Engineer to the Government of India.

Sir,

Home Department.

I AM directed to request that you will apprise Mr. Mather that in compliance with his application, dated the 27th ultimo, the Honourable the President in Council has been pleased to sanction the disbursement of 550 Co.'s rupees on account of boat-hire incurred by him whilst carrying on the construction of the cotton-cleaning machines for the Government of the North Western Provinces at Fort Gloster, and which was omitted to be included in the accounts furnished by him to the 6th July last.

2. The Sub-Treasurer has been instructed to disburse the above amount on Mr. Mather's bill, duly audited.

I have, &c.

(signed) *G. A. Bushby*,

Council Chamber, 4 November 1848.

Secretary to the Government of India.

* Home Cons., 4th November 1848, No. 60 to 65; 25th November 1848, No. 45 to 52; 16th December 1848, No. 31 to 48; 23d December 1848, No. 15 and 16; 27th January 1849, No. 14; 24th February 1849, No. 29 to 35; 24th February 1849, No. 44 and 45; 24th March 1849, No. 34 and 35.

† One boat and crew for ten months, at 55 rupees; Co.'s Rs. 550.

EXTRACT from the Proceedings of the Honourable the President of the Council of India in Council, in the Home Department, under date the 25th November 1848.

From *J. H. Mather*, Esq., Civil Engineer, Superintending Government Cotton Experiments, to *G. A. Bushby*, Esq., Secretary to the Government of India.

I.
Bengal and
North Western
Provinces.

No. 45.

Sir,

I HAVE the honour to acknowledge the receipt of your letter (No. 811) of the 21st. ultimo, in which you inform me of the intention of Government to sanction the experimental construction of cotton-cleaning machines, and of the terms on which my services are engaged for that purpose.

Home Department

2. According to the instructions contained in the 4th para. of your letter under acknowledgment, I have addressed a letter to Mr. Simms regarding the number of machines to be constructed, and the appliances required for their construction.

I have, &c.

(signed) *J. H. Mather*, C.E.

1, Hastings-street, Calcutta,
11 November 1848.

Superintending Government Cotton Experiments.

From *F. W. Simms*, Esq., Civil Engineer, to *F. J. Halliday*, Esq., Officiating Secretary to the Government of India.

No. 46.

Sir,

IN accordance with the instructions of Mr. Secretary Bushby in a letter, No. 926, of the 21st ultimo, I have the honour to inform you Mr. Mather reports that the 12 cotton-cleaning machines constructed by him for the Government of the North Western Provinces will be ready for dispatch by the next Government steamer to Allahabad. And with regard to the time which the construction of eight sets of cotton-cleansing machines will probably occupy at the Iron Bridge manufactory, he states that after a commencement is made and the workmen become properly acquainted with the nature of the work, he expects to turn out the machines at the rate of one set every six weeks.

2. I have annexed a copy of a letter from Mr. Mather, dated 11th November, wherein he states the number of the machines to be made up at one time, in order to keep within the estimate of sixty rupees each, should not be less than eight sets, as proposed in his letter to Mr. Secretary Bushby, of 28th September last, which proposition he still adheres to as necessary to avoid exceeding the estimate; it will therefore be desirable to have the pleasure of his Honour the President in Council upon this point.

3. Likewise in the above-named letter, para. 3, he says that some tools, in addition to those now in his possession, and those available at the Iron Bridge Yard, will be required, the probable cost of which will be 300 rupees, which will form part of the estimated cost of 60 rupees each machine. Under these circumstances I consider there would be no impropriety in authorising such expenditure, but upon this point also I should wish to be instructed. These tools might probably be obtainable from the Government stores in the arsenal.

4. Mr. Mather also remarks that the turning lathes and machinery in the yard will require some repairs before he can commence work, which will occupy him two or three weeks after he enters the yard; and lastly, he requires to know whether the stores now in the yard, as coke, coal, iron, timber, &c., can be made available for his work, and also when he can enter upon the premises.

5. In consequence of receiving the above-named letter I visited the iron yard with him, and I found it to be true that the lathes are very much out of order, and only one of them in a suitable state for Mr. Mather's work; there is, however, a second one, which he might put in order at no great cost. These two are all that can be made available for the work, and as he would most likely require more lathes, arrangements might be made to borrow one or two small ones from the gun foundry at Cossipore, if they have any such, and also if they can be spared.

6. It is not only desirable that Mr. Mather be authorised to enter upon the yard without delay to commence upon his work, but it is also important that his exact position in that yard be defined, for I find that work of various kinds is now being carried on there. I am not aware who is at present in charge of the yard, and responsible for the safety of the Government property, but was informed that the person lately in charge was a Mr. Harvey, now of the Mint. If, therefore, there exists a vacancy in that office, I would suggest the appointing of Mr. Mather thereto, as I think it would be very undesirable to have two head

Bengal and
North Western
Provinces.

men on the premises, the one in charge of the yard and stores, and Mr. Mather making his machines. I can see various objections to such an arrangement, and am apprehensive that it would not be found to work well.

Calcutta, 11 November 1848.

I have, &c.
(signed) F. W. Simms, C. E.

From J. H. Mather, Esq., Civil Engineer, Superintending Government Cotton Experiments,
to F. W. Simms, Esq., Consulting Engineer to the Government of India, &c. &c.

Sir,

I HAVE been directed by a letter (No. 811), dated 21st October, from G. A. Bushby, Esq., Secretary to the Government of India, to place myself in communication with you regarding the construction of cotton-cleaning machines for the Government of India at the Iron Bridge manufactory.

2. I am instructed by the same communication that the President in Council is of opinion that, instead of making up at once eight sets of the machines, as was formerly suggested to Government, it will be preferable to begin with the construction of only so many as I can readily undertake with the means at my disposal, and within the estimated cost. As you have so lately reported to Government on the machines already made up for the North Western Provinces, you will, I conclude, be aware that unless a certain number of the machines are made up at the same time they cannot be constructed within the estimated cost of sixty rupees each. I am therefore still of opinion that in order to keep within the estimate it will be desirable (as recommended in my letter to Mr. Bushby of 28th September) to commence on the manufacture of eight sets of the machines.

3. I would also direct your attention to the subject of the tools required for the above work, in addition to those which are at present available for the work. These will consist of a few vices, files, smiths' and carpenters' tools, the cost of which will not exceed three hundred Company's rupees (*Co's Rs.* 300), this amount being included in the estimate of sixty rupees for each machine.

4. The turning lathes and machinery in the yard will require sundry repairs and adjustments before the commencement of my work, which will occupy me for two or three weeks.

5. I have to request that you will inform me whether the Government stores at present in the yard of coal, coke, iron, timber, &c., can be made available for my work, and that you will also instruct me as to when I am to take charge of the yard.

I have, &c.
(signed) J. H. Mather, C. E.
Superintending Government Cotton Experiments.

1, Hastings-street, Calcutta,
11 November 1848.

(True copy.)
(signed) B. Coomaz.

(No. 5536 of 1848.)

No. 47. From C. Allen, Esq., Officiating Secretary to Government, North Western Provinces,
to G. A. Bushby, Esq., Secretary to Government of India, Home Department, Fort William.

Sir,

Revenue
Department. I AM directed by the Honourable the Lieutenant-governor to acknowledge the receipt of your letter, No. 814, dated 21st ultimo, stating that Mr. Mather will from that date draw a salary of 400 rupees per mensem, and in reply to inform you that the Civil Auditor, North Western Provinces, has been directed to pass his salary only up to that day.

2. In orders of this Government, dated 31st May 1847, appointing Mr. Mather, it was understood that a notice of three months should be given him before his services were dispensed with. The Lieutenant-governor considers that this new arrangement cancels the former one, and that Mr. Mather has no further claims on this Government.

3. His Honour will be glad to know when he may expect to receive the machines which Mr. Mather has constructed for this Government.

I have, &c.
(signed) C. Allen,
Officiating Secretary to Government,
North Western Provinces.

Agra, 8 November 1848.

MINUTE by the Honourable Sir *T. H. Maddock*, Knight, and concurred in
by the Honourable Major-general Sir *J. H. Littler*.

No. 43.

I WOULD sanction the proposition of employing the workmen on eight machines at once, till all that are required shall be finished.

The tools wanted may be purchased if they cannot be furnished from Government stores, and if one or two lathes can be borrowed so much the better.

On these points desire the Military Board to issue orders without delay. They will report on the subject of the last paragraph of Mr. Simms' letter, and if they deem it proper they may place the Iron Bridge Yard in charge of Mr. Mather.

(signed) *T. H. Maddock.*
J. H. Littler.

24 November 1848.

(No. 1055.)

From *F. J. Halliday*, Esq., Officiating Secretary to the Government of India,
Home Department, to *F. W. Simms*, Esq., Civil Engineer.

No. 49.

Sir,

I AM directed to acknowledge the receipt of your letter dated the 20th instant, and to state in reply that the Government of Bengal has been requested to instruct the Superintendent of Marine, on receiving a requisition from you to that effect, to provide freight in the next Government steamer proceeding to Allahabad for the twelve cotton-cleaning machines constructed by Mr. Mather for the Government of the North Western Provinces.

Home Department.

2. Under the circumstances stated by you the President in Council sanctions the construction at once of eight sets of the machine, as proposed by Mr. Mather.

3. Extract of your letter, paras. 3 to 6 inclusive, will be communicated to the Military Board, who will apprise Mr. Mather whether the tools and lathes required by him can be made available from the arsenal or the gun foundry at Cossipore; also, whether he can make use of the stores in the Iron Bridge Yard, and when he can enter upon the premises. If the required tools are not procurable from the Government stores, the President in Council will be prepared to authorise their purchase.

4. The Military Board have been called on to report on your recommendation for vesting Mr. Mather with the charge of the Iron Bridge Yard.

I have, &c.
(signed) *F. J. Halliday*,

Council Chamber, Officiating Secretary to the Government of India.
25 November 1848.

(No. 1056.)

From *F. J. Halliday* Esq., Officiating Secretary to the Government of India,
Home Department, to the Military Board.

No. 50.

Gentlemen,

IN continuation of Mr. Secretary Bushby's letter of the 21st ultimo, I am directed to forward to you the accompanying extract, paras. 3 to 6, of a letter from Mr. F. W. Simms.

2. The President in Council requests that your Board will have the goodness to ascertain and apprise Mr. Mather whether the tools and lathes required by him can be made available from the arsenal and gun foundry at Cossipore, and whether he can use the stores in the Iron Bridge Yard, as also when Mr. Mather can enter upon the premises.

3. His Honour in Council further requests that your Board will report on Mr. Simms' recommendation to vest Mr. Mather with the charge of the Iron Bridge Yard. Should such an arrangement be deemed proper, the Board can at once give it effect, as it is desirable that Mr. Mather should commence upon his work with as little delay as possible.

I have, &c.
(signed) *F. J. Halliday*,

Council Chamber, Officiating Secretary to the Government of India.
25 November 1848.

I.
Bengal and
North Western
Provinces.

(No. 1054.)

From *F. J. Halliday*, Esq., Officiating Secretary to the Government of India, Home Department, to *J. P. Grant*, Esq., Officiating Secretary to the Government of Bengal.

No. 51.
Home Department.

Sir,
MR. SIMMS having reported that the 12 cotton-cleaning machines constructed by Mr. Mather for the Government of the North Western Provinces will be ready for dispatch by the next Government steamer proceeding to Allahabad, I am directed to request that the necessary orders may be issued to the Superintendent of Marine to provide freight for them, on receiving a requisition from Mr. Simms to that effect.

I have, &c.
(signed) *F. J. Halliday*,
Officiating Secretary to the Government of India.
Council Chamber,
25 November 1848.

(No. 1071.)

No. 52. From *F. J. Halliday*, Esq., Officiating Secretary to the Government of India, Home Department, to Officiating Secretary to Government, North Western Provinces.

Sir,
Home Department. IN reply to your letter No. 5536, dated the 8th instant, I am directed to acquaint you that Mr. Simms having reported that the 12 cotton-cleaning machines constructed by Mr. Mather for the Government of the North Western Provinces will be ready for dispatch by the next Government steamer proceeding to Allahabad, the Government of Bengal has been requested to issue the necessary order to the Superintendent of Marine to provide freight for them.

I have, &c.
(signed) *F. J. Halliday*,
Officiating Secretary to the Government of India.
Fort William,
25 November 1848.

EXTRACT from the Proceedings of the Honourable the President of the Council of India in Council in the Home Department, under date the 16th December 1848.

No. 31. From *F. W. Simms*, Esq., Civil Engineer, to *F. J. Halliday*, Esq., Secretary to the Government of India, dated Calcutta, 4th December 1848.

Sir,
I HAVE the honour to submit a duplicate of a letter from Mr. Mather, suggesting that two chuprassies in the service of the Government of the North Western Provinces, now in Calcutta, be allowed a free deck passage to Allahabad on the steamer that is to convey the twelve cotton-cleaning machines, upon condition that they take charge of the packages so far as to see that they come by no injury in the way, and especially in the landing at Allahabad. The men would receive no other remuneration for this service than their free passage, which they would consider an equivalent, for otherwise they would have to walk the whole distance. Under such circumstances I would beg to state, that the arrangement appears to me desirable.

I have, &c.
(signed) *F. W. Simms, C.E.*

(No. 1082.)

No. 33. From *F. J. Halliday*, Esq., Officiating Secretary to the Government of India, Home Department, to *F. W. Simms*, Esq., Civil Engineer.

Sir,
Home Department. IN reply to your letter dated the 4th instant, I am directed to acquaint you that the Superintendent of Marine will be instructed to provide, on your requisition to that effect, a deck passage for two Government chuprassies in the steamer that may convey the cotton-cleaning machines for the Government of the North Western Provinces.

I have, &c.
(signed) *F. J. Halliday*,
Officiating Secretary to the Government of India.
Fort William,
9 December 1848.

No. 36. From *F. W. Simms*, Esq., Civil Engineer, to *F. J. Halliday*, Esq., Officiating Secretary to the Government of India.

Sir,
I HAVE the honour to enclose the following papers from Mr. Mather, with a view to their being forwarded to the Government of the North Western Provinces:

- 1st. Duplicate of a letter from Mr. Mather to myself, dated 8th instant.
- 2d. Copy of receipt from the steam department for the packages containing the twelve cotton-cleaning machines.
- 3d. Memorandum regarding the twelve cotton-cleaning machines.

4th. Drawing

4th. Drawing No. 1, showing the elevation and sections of the machines.

5th. Drawing No. 2, showing plan and section of machines as placed in a building.

2. I would beg to call your attention to the statement of Mr. Mather in the 4th para. of his letter to me, to the effect that it was "the original intention of the Government of the North Western Provinces that he should return to Agra to set up the machines." It certainly appears to me that such an arrangement would have been very desirable to ensure their being erected and set to work in the best possible manner.

Calcutta, 9 December 1848.

I have, &c.
(signed) F. W Simms, C.E.

I.
Bengal and
North Western
Provinces.

From J. H. Mather, Esq., Civil Engineer, Superintending Government Cotton Experiments,
to F. W. Simms, Esq., C.E., Consulting Engineer to the Government of India.

No. 37.

Sir,

I HAVE now the honour to enclose the receipt which I have received from the Steam Department for the cotton-cleaning machines dispatched for the Government of the North Western Provinces; you are already aware that the dispatch of these machines has been delayed for some time, on account of no tonnage having been available per Government steamers.

Enclosure.

2. I also enclose two drawings of the new cotton-cleaning machines, and a memorandum regarding the contents of the several packages, as well as some directions for the erection of the machines and their working gear. I would suggest that copies of the same should be forwarded to the Government of the North Western Provinces.

3. The erection and setting to work of this first set of the new cotton-cleaning machines will require considerable care and attention. It appears to have been the original* intention of the Government of the North Western Provinces that I should return to Agra for that purpose, but as this arrangement has not been carried out, I trust that the Government of the North Western Provinces will direct that strict attention be paid to the plans and directions which I now furnish for the erection of the machines.

I have, &c.
(signed) J. H. Mather, C.E.
Superintending Government Cotton Experiments.

Iron Bridge Yard,
Allipore, 8 December 1848.

MEMORANDUM of Enclosures.

Receipt from the Steam Department; Memorandum of packages and directions, &c.;
Two Drawings of new cotton-cleaning machines.

No. 38.
Enclosure.

RECEIVED from the Superintendent of Government Cotton Experiments (13) thirteen cases, (2) two pieces wooden framing, (8) eight cast-iron pillars, (2) two pieces iron shafting, and (3) cast-iron standards for transmission per Government steamer to Allahabad.

(signed) M. G. Costello,
Government Steam Boat Office, Registrar Government Boat Office.
8 December 1848.

MEMORANDUM regarding one set of new cotton-cleaning machines, &c. for the Government of the North Western Provinces.

No. 39.
Enclosure.

Twenty-eight packages each marked HC
AGRA.



Each machine is packed in a separate case, and is complete with the exception of the spur-wheel on the end of the wooden roller spindle. The spin-wheels of all the machines are packed in case No. 12, and each wheel is marked with the number of the machine to which it belongs; the keys for fastening the wheels on to the spindles are tied to the several wheels.

A wooden box will be found packed together with each machine; this box must be placed in front of the machine as shown in the drawing (of the machine) No. 1, which accompanied this Memorandum, in which this box is marked G. Case No. 13 contains the iron rods for guiding the driving-straps of the several machines, from the fast to the loose pulley, and *vice versa*, in stopping and starting the machine; these rods must be secured by the

* See Mr. Secretary Thornton's letter to Mr. Allen, dated Head Quarters, 30th September 1847. No. 3727 of 1847.

I.
Bengal and
North Western
Provinces.

the two screws attached to them to the floor of the machine-room, in the position shown in drawing No 1, where they are marked *W*.

This case also contains—

Three sets brass bearings for the three cast-iron standards, marked *f* in drawing No. 2.

Twelve large screws for securing standards to the wooden framing.

Seven bundles, each containing four steel keys for fastening cast-iron pulleys, marked *d* in drawing No. 2, on to shafting.

One cast-iron coupling box and keys, for connecting the two pieces of main shafting, marked *C* in drawing No. 2.

The general arrangement of the machines, and of the shafting and pulleys, &c., for driving the same, will be seen in drawing No. 2. The speed which should be given to the main-shaft, marked *C* in drawing No. 2, is 30 revolutions per minute, but on this point, when the machines are once fairly started, it is possible that a slight deviation from this speed may be found expedient.

Before the machines are tried, the wooden rollers should be well cleaned with sand paper, and then rubbed over with a stone, in the same manner as the native prepares a churka for work.

The steel rollers have been covered with grease to protect them from rust, &c., and will require well cleaning before they are used; strict attention should also be given to keeping all the bearings in the machines well and regularly oiled.

(signed) *J. H. Mather, C.E.*

Superintending Government Cotton Experiments.

Iron Bridge Yard,
Allipore, 8 December 1848.

(No. 1114.)

No. 42. From *F. J. Halliday, Esq.*, Secretary to the Government of India, Home Department, to Officiating Secretary to Government, North Western Provinces.

Sir,

IN continuation of my letter, No. 1100, dated the 9th instant, I am directed to forward, for the information of the Honourable the Lieutenant-governor, the accompanying copy of a despatch from Mr. F. W. Simms, Civil Engineer, dated the 9th idem, together with the two plans in original therewith submitted.

2. Copies of two letters from the Under Secretary to the Government of Bengal, dated the 30th ultimo and 13th instant, are also enclosed.

I have, &c.

(signed) *F. J. Halliday,*

Fort William, 16 December 1848. Secretary to the Government of India.

No. 43. From *F. W. Simms, Esq.*, Civil Engineer, to *F. J. Halliday, Esq.*, Officiating Secretary to the Government of India.

Sir,

I BEG to enclose a letter I have just received from Mr. Mather, who is engaged to construct certain cotton-cleaning machines for Government, and as I am to leave Calcutta on the 10th, upon business to Cuttack, I would request, in order to save time, that during my absence any instructions from Government regarding Mr. Mather may be forwarded direct to him at No. 1, Hastings-street.

I have, &c.

Calcutta, 8 December 1848. (signed) *F. W. Simms, Civil Engineer.*

No. 44. From *J. H. Mather, Esq.*, Civil Engineer, Superintending Government Cotton Experiments to *F. W. Simms, Esq.*, Consulting Engineer to the Government of India.

Sir,

WITH reference to your intended absence from Calcutta for a few weeks, I have now the honour to request that you will inform me what arrangements can be made for supplying me with funds for the payment of workmen's wages and incidental charges connected with the construction of cotton-cleaning machines, as I shall require funds for this purpose previous to your return.

2. While engaged in constructing the machines for the Government North Western Provinces, orders were issued by Government from time to time to the sub-treasurer to pay on my receipt such sums as I might draw for, not exceeding a certain amount; in the present instance I would request (if the same system is to be pursued) that the sub-treasurer may be directed to pay such sums as I may from time to time require, not exceeding two thousand Co.'s rupees (2,000 Co.'s rupees.)

I have, &c.

(signed) *J. H. Mather,*

Superintending Government Cotton Experiments.

Iron Bridge Yard, Allipore,
8 December 1848.

(No. 1094.)

From *F. J. Halliday*, Esq., Secretary to the Government of India, Home Department, to Sub-Treasurer.

I.
Bengal and
North Western
Provinces.

No. 45.

Home Department.

Sir,

I AM directed to request that you will advance, on the receipt of Mr. Mather, civil engineer, employed in constructing cotton-cleaning machines, for the Government, such sums of money as he may from time to time require, not exceeding in the aggregate 2,000 rupees (two thousand).

I have, &c.

(signed) *F. J. Halliday*,

Secretary to the Government of India.

Council Chamber,
16 December 1848.

(No. 1115.)

From *F. J. Halliday*, Esq., Secretary to the Government of India, Home Department, to *J. H. Mather*, Esq., Civil Engineer.

Sir,

WITH reference to your letter, to the address of Mr. Simms, dated the 8th instant, I am directed to acquaint you that the sub-treasurer has been instructed to advance on your receipts a sum not exceeding 2,000 rupees, in such proportions as you may from time to time require for the prosecution of your work.

I have, &c.

(signed) *F. J. Halliday*,

Secretary to the Government of India.

Council Chamber,
16 December 1848.

(No. 6614.)

From the Military Board to the Honourable Sir *T. H. Maddock*, Knight, President of the Council of India, in Council, Fort William, 1 December 1848.

No. 48.

Honourable Sir,

WE have the honour to acknowledge the receipt of Mr. Officiating Secretary Halliday's letter, No. 1056, of the 25th November last, and to state that we have instructed Mr. Mather, as per copy of letter annexed, to submit indents for the tools and materials he may require to enable him to carry on his operations at the Iron Bridge Yard.

Department Public
Works.

2. Our Board see no objection to the occupation of the dwelling-house at the Iron Bridge Yard by Mr. Mather, at the present time, when the premises would otherwise remain empty, and as a temporary measure.

3. A report on the Iron Bridge Yard will shortly be forwarded to Government in the Military Department, embracing the question of the advantages of retaining the yard, and appointing a Superintendent to it.

We have, &c.

(signed) *F. S. Hawkins*, Lt.-Col.

E. Garstin, Lt.-Col.

W. Mactier, Lt.-Col.

(No. 6613.)

From *A. Dallas*, Esq., Officiating Secretary Military Board, to *J. H. Mather*, Esq., Civil Engineer, and Superintendent Government Cotton Experiments.

Sir,

UNDER orders of Government, dated the 25th November last, I am directed by the Military Board to request you to send an indent or requisition on the Board for such tools, as you may require, stating precisely their number and description, to enable the Board to take measures for having such tools as are available from Government stores, supplied to you. The Board request you will also indent for such quantities of coke, coal, iron, and timber as you require, in a separate requisition, which will be also supplied from the Government stores.

I have, &c.

(signed) *A. Dallas*, Officiating Secretary.

Military Board Office,
1 December 1848.

EXTRACT from Proceedings of the Honourable the President of the Council of India, in Council, in the Home Department, under date the 23d December 1848.

(No. 5822 of 1848.)

From *C. Allen*, Esq., Officiating Secretary to the Government North Western Provinces, to *F. J. Halliday*, Esq., Officiating Secretary to the Government of India, Home Department, Fort William.

No. 15-

Sir,

I AM directed to acknowledge the receipt of your letter of the 25th ultimo, No. 1071, respecting the 12 cotton-cleaning machines constructed by Mr. Mather for this Government.

Revenue
Department.

I.
Bengal and
North Western
Provinces.

2. The Lieutenant-governor was led to expect, from the annexed passages* in Mr. Simms' Report to your predecessor's address, under date the 7th August last, that some machinery had been constructed at a cost of 516 rupees, for working the 12 machines. No distinct mention of this is made in your letter; but it is hoped that this machinery has been already dispatched, or if not, that it may be so with as little delay as possible.

Agra, 12 December 1848.

I have, &c.
(signed) *C. Allen*,
Officiating Secretary to the Government
North Western Provinces.

No. 16. From *W. Grey*, Esq., Under Secretary to the Government of India, Home Department to Assistant Secretary to Government North Western Provinces.

Home Department. Sir,
I AM directed to acknowledge the receipt of the Officiating Secretary's letter, No. 5822, dated the 12th instant, and, in reply, to refer you to the communication of the 16th idem, No. 1114.

Fort William, 23 December 1848.

I have, &c.
(signed) *W. Grey*,
Under Secretary to Government of India.

EXTRACT from the Proceedings of the Honourable the President of the Council of India, in Council, in the Home Department, under date the 27th January 1849.

(No. 40.)

No. 14. From the Under Secretary to the Government of Bengal to *W. Grey*, Esq., Under Secretary to the Government of India, Home Department.

Revenue. Sir,
With reference to Mr. Secretary's Bushby's letter, No. 927, of the 1st October last, I am directed to inform you that four of Mr. Mather's cotton-cleaning machines will be sufficient for this Presidency.

Fort William, 10 January 1849.

I have, &c.
(signed) *W. Seton Karr*,
Under Secretary to the Government of Bengal.

EXTRACT from the Proceedings of the Honourable the President of the Council of India, in Council, in the Home Department, under date the 24th February 1849.

(No. 130 of 1849.)

No. 29. From *C. Allen*, Esq., Officiating Secretary to Government in the North Western Provinces, to *F. J. Halliday*, Esq., Officiating Secretary to the Government of India, Home Department, Fort William.

Revenue Department. Sir,
IN reply to Mr. Under Secretary Grey's letter, No. 1141, dated 23d ultimo, I am directed by the Honourable the Lieutenant-governor to say, that no special mention of the machinery inquired about in my letter No. 5822, dated 12th idem, appears to have been made in the correspondence received with your letter, No. 1114, dated 16th idem.

2. If, however, the whole of the machinery purchased of Messrs. Jessop & Co. for working the machines, at a cost of 516 rupees, have been dispatched to Agra, it will be satisfactory to the Lieutenant-governor to receive specific information of the articles, and to be apprised of the numbers of the cases in which they were packed.

Agra, 12 January 1849.

I have, &c.
(signed) *C. Allen*,
Officiating Secretary to Government
North Western Provinces.

* Messrs. Jessop & Co., for pulleys and shafts to work the machines at Agra, 516 rupees.

"The work executed by Messrs. Jessop & Co. was ordered by Mr. Mather upon the authority of a letter from Mr. Allen to him, dated 1st November 1847 (which is now before me), in the following words: 'You are aware of what machinery there is at this station. Whatever may be required in excess for working the twelve machines, should be brought up by you.'"

(No. 87.)

From *W. Grey*, Esq., Under Secretary to the Government of India, Home Department,
to *Mr. J. H. Mather*.

Sir,

I HAVE the honour to request that you will be so good as to forward a detailed list of the articles obtained by you from Messrs. Jessop & Co., at a cost of 516 rupees, for the purpose of working the 12 cotton machines which have been dispatched to Agra; and also that you will specify, if possible, the numbers of the packages in which those articles were comprised.

I have, &c.

(signed) *W. Grey*,

Council Chamber,
6 February 1847.

Under Secretary to Government of India.

I.
Bengal and
North Western
Provinces.

No. 30.

Home Department.

From *J. H. Mather*, Esq., Civil Engineer, Superintending Government Cotton Experiments,
to *W. Grey*, Esq., Under Secretary to the Government of India.

No. 31.

Sir,

I HAVE the honour, in reply to your letter (No. 87) of the 6th inst., to enclose a copy of Messrs. Jessop & Co.'s bill for the cast-iron pulleys and shafting dispatched to Agra, for the purpose of working 12 cotton machines. I also enclose a memorandum of the marks and numbers placed on the several pieces of iron work, &c. alluded to when dispatched from Calcutta.

2. I would take this opportunity of suggesting, that it would be advisable that a quantity of "kupas" (seed cotton), about 50 maunds, should be obtained, for the purpose of testing the cotton-cleaning machines now in course of construction here; an arrangement for procuring the same, and sending it to Calcutta, might be easily made, through the Government North Western Provinces, with Mr. Hamilton Bell, of Agra, late cotton agent to the Government North Western Provinces, and the present is the proper season for obtaining it.

I have, &c.

(signed) *J. H. Mather*,

Civil Engineer,

Iron Bridge Yard, Allipore,
12 February 1849.

Superintending Government Cotton Experiments.

COPY of Messrs. *Jessop & Co.*'s Account for Iron Work, &c. supplied to order of
J. H. Mather, for the Government Cotton Experiments North Western Provinces.

1848:		<i>Rs. a. p.</i>
May 11 -	A teak-wood frame, 15 feet long - - - - -	45 - -
	Three cast-iron standards, with plumper blocks, 5 mds. 8 s., brass bushes and screws attached, at 31 rupees - -	93 - -
	Two wrought-iron shafts and a cast-iron coupling box, two inches diameter, in all 15 feet long, 3 mds. 24 s., at 14 rupees - - - - -	50 6 6
	Turning, boring, and fitting coupling box - - - - -	24 - -
	Eight cast-iron pulleys, 2 and 3 feet diameter × 68, and 12 inches broad, and 28 keys, 20 mds. 27 s. 8 ch. -	289 10 -
	Turning, boring, keying, &c., 40 rupees; cooley hire, Rs. 1. 1. 6. - - - - -	41 1 6
		543 2 -
	No. 927. Less 5 per cent. - - - - -	27 2 -
	Total - - - Co.'s Rs.	516 - -

(signed) *Jessop & Co.*

(True copy.)

(signed) *A. H. Mather*, C. E.

I.
Bengal and
North Western
Provinces.

MEMORANDUM of the Marks and Numbers placed on Iron Work, &c., supplied by Messrs. Jessop & Co., when dispatched from Calcutta on the 8th December.

MARK.	NUMBER.	DESCRIPTION OF WORK.
H C AGRA	13	In this case are three sets of brass bushes, 12 large wood screws, 28 steel keys, one coupling box, and 2 keys.
	14	One piece teak, wood framing.
	15	One - ditto - ditto.
	16	One cast-iron pulley.
	17	One ditto ditto.
	18	One ditto ditto.
	19	One ditto ditto.
	20	One ditto ditto.
	21	One ditto ditto.
	22	One ditto ditto.
	23	One ditto ditto.
	24	One piece wrought-iron shafting.
	25	One - - ditto - ditto.
	26	One cast-iron standard.
	27	One ditto ditto.
	28	One ditto ditto.

(signed) J. H. Mather, C.E.
Superintending Government Cotton Experiments.

Iron Bridge Yard, Allipore,
12 February 1849.

(No. 109.)

No. 34. From W. Grey, Esq., Under Secretary to the Government of India, Home Department, to Assistant Secretary to Government North Western Provinces.

Sir,

Home Department. I AM directed to transmit the accompanying memoranda and bill received from Mr. Mather, containing the information required in Mr. Officiating Secretary Allen's letter, dated the 12th ultimo.

Fort William,
13 February 1849.

I have, &c.
(signed) W. Grey,
Under Secretary to Government of India.

(No. 138.)

No. 35. From W. Grey, Esq., Under Secretary to the Government of India, Home Department, to Assistant Secretary to Government North Western Provinces.

Sir,

Home Department. I AM directed to forward extract, para. 2, from a letter from Mr. Mather, and to request that the quantity of "kupas" (seed cotton) required by him for the purpose of testing the cotton-cleaning machines in course of construction at Calcutta may be procured either from Mirzapore, or through the agency of Mr. Bell, and forwarded to the Presidency.

Fort William,
24 February 1849.

I have, &c.
(signed) W. Grey,
Under Secretary to the Government of India.

EXTRACT from the Proceedings of the Honourable the President of the Council of India in Council, in the Home Department, under date 24th February 1849.

(No. 249.)

From *C. G. Mansel*, Esq., Officiating Accountant to the Government of Bengal, to *F. J. Halliday*, Esq., Secretary to the Government of India, Home Department.

I.
Bengal and
North Western
Provinces.

No. 44.

Sir,

WITH reference to your letter No. 1095, dated the 16th December last, stating that the sub-treasurer has been instructed to advance (2,000 Co.'s rupees) two thousand rupees to Mr. Mather for the construction of his cotton-cleaning machine, I have the honour to request that you will have the goodness to inform me whether that amount is to be written off in the public accounts as a charge, or held at the personal debit of that officer till he furnishes accounts for the outlay audited in the regular course.

Office of Ac-
countant-General
Department.

Fort William,
16 February 1849.

(I have, &c.
(signed) *C. G. Mansel*,
Officiating Accountant to the Government of Bengal.

(No. 133.)

From *F. J. Halliday*, Esq., Secretary to the Government of India, Home Department, to *C. G. Mansel*, Esq., Officiating Accountant to the Government of Bengal.

No. 45.

Sir,

I AM directed to acknowledge the receipt of your letter No. 249, dated the 16th instant, and, in reply, to state that the sum of two thousand rupees therein referred to may be held for the present as an advance at Mr. Mather's debit.

Home Department.

Council Chamber,
24 February 1849.

I have, &c.
(signed) *F. J. Halliday*,
Secretary to the Government of India.

EXTRACT from the Proceedings of the Honourable the President of the Council of India in Council, in the Home Department, under date 24th March 1849.

From *Edward Smith*, Esq., to *F. J. Halliday*, Esq., Secretary to the Government of India, Home Department.

No. 34.

Sir,

I HAVE the honour to request you to inform me whether the Government of India would be willing to allow the set of the new cotton-cleaning machines which, I am informed, are now being constructed for the Government by Mr. J. H. Mather, Civil Engineer, to be despatched to Port Natal, Africa, on payment of all charges for their construction.

I make this application with reference to some experimental cotton cultivation which is at present being carried out at Port Natal by my correspondent, Mr. Galloway, of Manchester.

Having been myself practically connected with the cotton spinning and manufacturing for many years in Preston and at Manchester, and I have had an opportunity of inspecting Mr. Mather's machine when lately exhibited in the Metcalfe Hall, I consider these machines will be much sought after when their advantages become better known, as it fully opens out the cotton, and cleans as well as clears it from the seed.

10, Middleton Row, Chowringhee,
12 March 1849.

I have, &c.
(signed) *Edward Smith*,

(No. 208.)

From *W. Grey*, Esq., Under Secretary to the Government of India, Home Department, to *E. Smith*, Esq.

No. 35.

Sir,

IN reply to your letter dated the 12th instant, I am directed to inform you that the Government will have no objection to place a set of Mr. Mather's cotton-cleaning machines at your disposal, on payment of all charges for their construction.

Home Department.

Council Chamber,
24 March 1849.

I have, &c.
(signed) *W. Grey*,
Under Secretary to the Government of India.

I.
Bengal and
North Western
Provinces.

EXTRACT from a Despatch from the Government of India to the Honourable the Court of Directors, in the Home Department; dated 10 October 1849, No. 28.

Mr. Mather to be furnished with iron castings from the Cossipore Foundry for his cotton-cleaning machines.

18. We authorised Mr. Mather's being supplied from the Cossipore foundry with iron castings for his cotton-cleaning machines, provided this could be done without interfering with other more urgent demands on the foundry.

Home Cons., 6th January 1849, No. 35 to 38.

EXTRACT from the Proceedings of the Honourable the President of the Council of India in Council, in the Home Department, under date the 6th January 1849.

No. 35. From *F. W. Simms*, Esq., Civil Engineer, to *F. J. Halliday*, Esq., Officiating Secretary to the Government of India.

Sir,

IN accordance with the instructions given in Mr. Secretary Bushby's letter, No. 926, of the 21st of October last, para. 3, I have called upon Mr. Mather to send me a report of his progress in constructing the cotton-cleaning machines to the end of the year, and to send me a similar report quarterly. He has sent me the report called for, dated the 2d instant, which I enclose for the information of Government.

The only observation I consider it necessary to make is relative to his proposal in the 3d para., to obtain his iron castings at the Cossipore foundry; this I would most certainly recommend, and request the necessary orders to be sent from Government, either to the Military Board or to Captain Broome, whichever may be proper; and as I am on the eve of leaving Calcutta for Midnapore, I would beg to suggest that the decision of Government respecting the castings, and also any other orders respecting the cotton machines, should be sent to Mr. Mather, at the Iron Bridge Yard, where he has now taken up his residence.

I have, &c.

(signed) *F. W. Simms*,

Calcutta, 3 January 1849.

Civil Engineer.

No. 36.
(Enclosure.)

From *J. H. Mather*, Esq., Civil Engineer, Superintending Government Cotton Experiments, to *F. W. Simms*, Esq., Civil Engineer, Consulting Engineer to the Government of India.

Sir,

IN reply to your letter of yesterday, I have now the honour to inform you, with reference to the construction of the cotton-cleaning machines, that since the 11th November last (when I was directed by Mr. Secretary Bushby to place myself in communication with you), in consequence of the delay which took place before, I was instructed as to the number of machines to be made, and whence I was to be provided with the requisite tools, and funds for the payment of wages, my proceedings have chiefly been confined to planning and arranging the alterations which I am about to introduce into the new machines, to making drawings, and to setting up a model machine, in which the alterations above alluded to can be tested.

2. On the 11th November I addressed you with reference to the number of machines to be constructed, and regarding the tools, turning lathes, and stores required for the work, and requested your instructions on these subjects. On the 1st December you informed me that the construction of eight sets of machines (as suggested in my letter) was sanctioned by Government; and on the 4th December I received a letter (No. 6613) from the Officiating Secretary to the Military Board (a copy of which I now enclose), informing me that the tools alluded to in my letter to you of the 11th November would be supplied to me from that department. I subsequently wrote to you on the 8th December regarding the funds required for the payment of workmen's wages and incidental charges connected with my work, and on the 20th December received in reply a letter (No. 1115) from Mr. Secretary Halliday (a copy of which I enclose), informing me that the Sub-Treasurer had been instructed to make me the requisite advances for the work; since the receipt of this last letter, I have secured the services of the requisite workmen, and the work will now, I trust, proceed rapidly.

3. I would also take this opportunity of bringing to your notice the fact, that from the inquiries which I have made from Captain Broome, Superintendent of the Government Gun Foundry at Cossipore, I find that some part of my work, viz., the cast-iron work, can be executed at a far cheaper rate at that establishment than at the Bridge Yard, where my work is being carried on; the saving in expense would average about three rupees per maund weight; I would therefore request you to obtain the sanction of Government for my obtaining the iron castings which I may require from the Cossipore foundry; I have spoken to Captain Broome, as well as to Captain Scott, Assistant Secretary to the Military Board, on this subject, and have ascertained from them that no difficulty will be experienced at the foundry in complying with this request after the receipt of the sanction of Government.

I have, &c.

(signed) *J. H. Mather*,

Bridge Yard, Allipore,
2 January 1849.

Civil Engineer, Superintending Government
Cotton Experiments.

TO PROMOTE THE CULTIVATION OF COTTON IN INDIA. 397

(No. 19.)

From *W. Grey*, Esq., Under Secretary to the Government of India, Home Department, to
J. Mather, Esq., Civil Engineer.

Sir,

WITH reference to the 3d para. of your letter to Mr. Simms of the 2d instant, I am directed to acquaint you that the Military Board have been requested to instruct the Superintendent of the Cossipore foundry to meet your requisitions for cast-iron work, provided he can do so without interfering with other more urgent demands on that establishment.

I have, &c.

(signed) *W. Grey*,

Council Chamber,
6 January 1849.

Under Secretary to the Government of India.

I.
Bengal and
North Western
Provinces.

No. 38.

EXTRACT from a Despatch from the Government of India to the Honourable the Court of Directors, in the Home Department; dated 10 October 1849, No. 28.

19. THE construction of a cattle-mill to be attached to one of eight sets of cotton-cleaning machines which are under construction by Mr. Mather,* was sanctioned by us at a cost of 530 rupees; and we authorised advances to the extent of a further sum of 2,000 rupees for the machines themselves.

Cattle mill to be attached to a set of Mr. Mather's cotton-cleaning machines. Further advance of 2,000 rupees made to Mr. Mather.
Home Cons., 24th March 1849, No. 36 to 39.

EXTRACT from the Proceedings of the Honourable the President of the Council of India in Council, in the Home Department (Public), under date the 24th March 1849.

From *J. H. Mather*, Esq. C.E., Superintending Government Cotton Experiments, to
F. J. Halliday, Esq., Secretary to the Government of India.

No. 36.

Sir,

I HAVE the honour to request the sanction of Government for the construction of a cattle-mill at an estimated cost of (530 Co.'s rupees) five hundred and thirty rupees, to be attached to one of the eight sets of cotton-cleaning machines which I am at present employed in constructing. It was originally intended that the cattle-mills (one of which is required for working each set of machines) should be made up in the cotton districts, where the machines may eventually be set up; but as it is exceedingly desirable that a full set of machines should be set to work before they are dispatched from Calcutta, I would request permission to construct a cattle-mill at an estimated cost (530 Co.'s rupees) five hundred and thirty Co.'s rupees, which might after the trial here be taken to pieces, and dispatched together with one set of the machines.

2. I would also take this opportunity of requesting that the sub-treasurer may be authorised to advance on my receipts a further sum, not exceeding (2,000 Co.'s rupees) two thousand rupees, as I from time to time require the same for the prosecution of my work, according to the original estimate.

I have, &c.

(signed) *J. H. Mather*, C.E.

Iron Bridge Yard, Allipore,
6 March 1849.

Superintending Government Cotton Experiments.

(No. 209.)

From *F. J. Halliday*, Esq., Secretary to the Government of India, Home Department, to
J. H. Mather, Esq., Civil Engineer, Superintending Government Cotton Experiments.

No. 39.

Sir,

I AM directed to acknowledge the receipt of your letter, dated the 6th instant, and, in reply, to inform you, that the President in Council is pleased to sanction the construction of a cattle mill at a cost not exceeding (530 rupees) five hundred and thirty rupees.

2. I am at the same time desired to inform you, that the sub-treasurer has been instructed to advance on your receipts a further sum, not exceeding (2,000 rupees) two thousand rupees, in such proportions as you may from time to time require for the prosecution of your work.

I have, &c.

(signed) *F. J. Halliday*,

Fort William,
24 March 1849.

Secretary to the Government of India.

* *Vide* para. 15 of letter to Court, No. 23, 28th July 1849.

I.

Bengal and
North Western
Provinces.

EXTRACT from a Despatch from the Government of India to the Honourable the Court of Directors, in the Home Department, dated the 10th October 1849, No. 28.

Purchase of 50 maunds of kupas for testing Mr. Mather's cotton-cleaning machines.

Home Cons. 24th March 1849, Nos. 12 to 15.
Home Cons. 7th April 1849, Nos. 26 and 27.

20. The papers forming this collection, relative to the purchase of 50 maunds of kupas for testing Mr. Mather's cotton-cleaning machines, are forwarded in continuation of those which accompanied paras. 15 and 16 of our letter No. 23, dated 28th July 1849.

EXTRACT from the Proceedings of the Honourable the President of the Council of India, in Council, in the Home Department (Public), under date the 24th March 1849.

(No. 855 of 1849.)

No. 12. From *C. Allen*, Esq., Officiating Secretary to the Government, North Western Provinces, to *F. J. Halliday*, Esq., Secretary to the Government of India, Home Department, Fort William.

Sir,

Revenue Department.

I AM directed to acknowledge the receipt of Mr. Under Secretary Grey's letter, No. 138, dated 24th ultimo, regarding the purchase of 50 maunds of kupas required by Mr. Mather to test his new machines, and, in reply, to forward copy of a letter this day addressed to Mr. Melville, at Rajpore, in Zillah Banda, Mr. Hamilton Bell having recommended the cotton of that district for the experiment.

Agra, 13 March 1849.

I have, &c.
(signed) *C. Allen*,
Officiating Sec. to Govt. N. W. P.

(No. 857 of 1849.)

No. 13. From *C. Allen*, Esq., Officiating Secretary to the Government, North Western Provinces, to *W. Melville*, Esq., Deputy Collector of Customs, Rajpore.

(Enclosure.)

Sir,

Revenue Department.

I AM directed by the Honourable the Lieutenant-governor to request that you will purchase and dispatch to Calcutta 50 maunds of the best procurable kupas (or seed cotton), for the purpose of testing the cotton-cleaning machines in course of construction at the Government Iron Bridge Manufactory, by Mr. J. H. Mather.

2. The cotton should be forwarded as expeditiously as possible, and from Allahabad, on board the first available Government steamer, to the care of *F. J. Halliday*, Esq., Secretary to the Government of India.

3. Any necessary expenditure will be paid on your submitting a contingent bill for the same to this office.

Agra, 13 March 1849.

I have, &c.
(signed) *C. Allen*,
Officiating Sec. to Govt. N. W. P.

(True copies.)
(signed) *C. Allen*,
Officiating Sec. to Govt. N. W. P.

(No. 15 of 1849.)

No 27. From *W. Melville*, Esq., Deputy Collector of Customs, Rajpore, to *C. Allen*, Esq., Officiating Secretary to the Government, North Western Provinces.

(Enclosure.)

Sir,

I HAVE the honour to acknowledge the receipt of your letter, No. 857, dated the 13th inst., with orders to purchase and send to Calcutta 50 maunds of kupass. On inquiry, I find there will be some difficulty, and therefore delay, in procuring such a quantity of kupass at this time of the year: the season is past. In this district the kupass is almost all seeded in December and January, and now it can only be collected in dribblets here and there, and at unfavourable rates.

I have lost no time in sending men into the district in search of it: no avoidable delay shall take place; but I fear I shall not be able to announce its dispatch from this place under 20 days. I can only trust that this delay, which is quite unavoidable, may not defeat, nor even retard, the experiment Government has in view.

I have, &c.
(signed) *W. Melville*,
Deputy Collr. of Customs.

Rajpore Custom House,
20 March 1849.

EXTRACT from a Despatch from the Government of India to the Honourable the Court of Directors, in the Home Department, dated the 23d April 1850, No. 17.

17. The papers forming this collection contain a report on the result of a trial at Agra of the cotton cleaning machines constructed by Mr. Mather for the Government of the North Western Provinces.

Report of a trial at Agra of the cotton-cleaning machines constructed by Mr. Mather.

Home Cons. 1st Sept. 1849, Nos. 12 to 17.
Home Cons. 29th Sept. 1849, Nos. 25 to 33.

EXTRACT from the Proceedings of the Honourable the President of the Council of India in Council, in the Home Department, under date the 1st September 1849.

(No. 2630 of 1849.)

From *J. Thornton, Esq.*, Secretary to Government, North Western Provinces, to *F. J. Halliday, Esq.*, Secretary Government India, Home Department, Fort William.

No. 12.

Sir,

I AM directed by the Honourable the Lieutenant-governor to transmit, for the purpose of being laid before the Honourable the President in Council, copies of the correspondence noted in the margin,* regarding the improved cotton churkas prepared by Mr. Mather for this Government.

Revenue Department.

Head Quarters,
13 August 1849.

I have, &c.
(signed) *J. Thornton*,
Secy. to Govt., N. W. P.

From *H. H. Bell, Esq.*, to *J. Thornton, Esq.*, Secretary to Government, North Western Provinces.

No. 13.
Enclosure.

Sir,

I HAVE the honour to transmit, for the information of the Honourable the Lieutenant-governor, a report on the improved cotton churkas prepared by Mr. Mather for this Government, and which I request you to bring to his Honor's notice.

Agra, 12 July 1849.

I have, &c.
(signed) *H. Hamilton Bell*.
(True copy.)
(signed) *R. Thornton*,
Assistant Secretary to Govt., N.W.P.

REPORT of Committee on Mr. Mather's Churkas.

No. 14.
Enclosure.

IN transmitting the enclosed reports of Captain Oldfield of the trial of Mr. Mather's churkas, desired by Government,—in the result stated in which I quite concur,—I trust I shall not be considered as travelling out of the record if I enter into a short recapitulation of the proceedings connected with this subject.

When the cotton cultivation experiment, lately closed in these provinces, was first determined upon, it had been officially stated that the condition in which the produce of this country was brought to market was almost as injurious to its estimation as its inferior quality, and the improvement of this was, in the opinion of many, scarcely secondary.

The Honourable Company had evinced their sense of the necessity of attention to this point, and the sincerity of their intervention, by the introduction of expensive machinery, the invention of which may be said to have created the cotton trade of America. The American cotton gins had proved unsuitable to the short-stapled cotton of the North Western Provinces, but as they had been introduced at considerable charge, their relinquishment was regarded with reluctance.

On the arrival at Agra of Mr. Mather, civil engineer, whose assistance, as scientifically and practically acquainted with machinery, had been engaged, his first attention was turned to the practicability of the adaptation of the existing saw-gins to the cotton of this country; and when, after repeated trials, this was declared hopeless, he brought forward an improved churka of the late Mr. Potter, as constructed on the true principle. This was regarded, by all

* Letter from H. H. Bell, Esq., dated 12th July, with Enclosure. Letter to Mr. Bell of this date.
296—Sess. 2.

all connected with the experiment with considerable complacency, as it was neither more nor less than the native churka, assumed to be improved by more skilful manufacture. It was asserted that it more perfectly freed the cotton from its seed, thus rendering the relative out-turn of the former larger; that it did much more work; and which to me seemed the great desideratum, that it might be so constructed that a number could be worked at the same time, and by the same power, by machinery, replacing the unequal and uncertain results of manual labour, both as regards quality and quantity, by better preparation and increased returns. It was stated that twelve of these churkas might be turned by one pair of bullocks, and the inventor or improver, Mr. Potter, had protested against any judgment as to the capacity of the instrument, unless moved by the power contemplated in its construction. It is only necessary on this point further to observe, that the construction of twelve machines by Mr. Mather obtained the sanction of Government, and that for the trial of eleven of these, sent up from Calcutta, the experiment now reported was directed.

The practicable out-turn by the native hand churka could not be accurately ascertained; but in the number of people (not less than 300) employed at Kutcherry Ghat, although there were some few who occasionally reached 16 lbs. per diem, the average per churka did not reach 8 lbs. It was assumed by Mr. Mather that his churka would do four times this quantity. A brush and iron grating attached by him to the Potter churka had also the great advantage of cleaning and opening out the cotton after it passed through the rollers. In the common native churka the cotton becomes conglomerated of fuggy, and a subsequent process is necessary to remove this, which is obviated by Mr. Mather's improvement; and it is a remark in the report of the Committee of the Agricultural and Horticultural Society on these churkas, that cotton thus prepared is cleaner than most American cotton imported into Liverpool; and letters from that city speak of it as sufficiently so for all commercial purposes.

It seems to me that, so far as the capability of the machine, the Calcutta trials (see No. IV.) have already determined that a single churka, if worked at the rate in the trial, for a day of twelve hours, can turn out 25 lbs. of clean cotton per day, and that, so far, Mr. Mather's opinions are supported by results.

If, by inexpensive machinery, twelve of these could be kept in regular motion for a day's work of twelve hours, so that the out-turn would be 300 lbs. per day, more or less, I should have been disposed to say that he had solved the problem of the description of machine which might be advantageously employed in this country for freeing cotton from its seed. My aim has been, therefore, to ascertain if this had been reached by Mr. Mather in the machinery sent up to Agra; whether this had been done in the most economical and effectual manner was also to be ascertained, and was, at least, questionable.

As Mr. Mather in his letters dwells strongly on the all importance of adjustment, the sanction of Government was obtained for the construction of a building for twelve machines, strictly on the plan sent up with the machinery, and this has been accurately done by Mr. M'Kenzie.

Whilst completing all necessary arrangements, repeated trials have been made singly, or with a few churkas; but in these the highest result obtainable has not passed 12 lbs. as a product of a day of 12 hours. This seems to me to determine that we have not so adjusted the churkas, or managed the power, as to avail of their capability to the fullest determined extent.

The trial of the 25th May was attended with the great disadvantage of the gearing having become loose, and out of order, by a change of the wind to the east during the preceding night, after it had been well set up, which necessitated the adjustment of the leathern straps; and after all these worked imperfectly, and, in fact, would not work at all in some cases.

The returns are accurately given by Captain Oldfield, and it will be seen they do not much exceed one-fifth of that obtained in the trial in Calcutta. There are but two alternatives; either the machinery is unsuited to its purpose and deficient in power, or its adjustment is inaccurate.

The bullocks were estimated to travel at the rate of two miles per hour. Four pairs were employed, but it was not ascertained how much of their power was exhausted in putting the rather heavy machinery, which originally was made use of for working the American saw-gins, in motion, or how much, in fact, was superfluous.

I think it probable two pairs could have been kept to the same pace; but the question of the power employed was secondary, until we had ascertained that the machinery and its setting up were such that, as some bullock power, we should obtain an out-turn similar to that reported in Calcutta.

In my opinion, the number of revolutions of the rollers resulting from the existing machinery turned by bullocks driven at this pace, would be quite inadequate to the effectual working of the churka; and though Mr. Mather's scientific mechanical knowledge might probably easily remedy this, I feel myself bound to express my opinion that bullock power with the machinery in use as sent up will not produce the results expected by Mr. Mather, and that in this respect the experiment has failed.

I concur in Captain Oldfield's opinion, that the position of the feeding box is an obstruction rather than a convenience, and that the screw and brass bearing also greatly impedes the feeder, and has the objection attributed to it; whilst I must also avow I do not perceive their necessity for the object for which they were intended, unless the rollers had been of much greater length.

If our experimental trial of the 25th May had been confined to Mr. Mather's machines,
I should

I should not have hesitated to assume that the unfavourable out-turn might be ascribed to an imperfect adjustment of the machinery, and I should, perhaps, have suggested repeated trials; but facts have arisen, in the course of those which have taken place, which satisfy me that no advantage could be derived from perseverance with the Mather churka as made up in Calcutta for this Government.

My reasons for this arise from its having occurred to me to try the native churka with a driving-wheel attached, by which the manual labour of turning them was superseded, two of them being kept in motion with the same power, and at the same time as Mr. Mather's. The out-turn of that with the larger driving-wheel (the smaller not working properly), was, relatively to Mr. Mather's, as 12 to 5½, and it seemed a necessary consequence that the capability of the common churka had not been maintained in Mr. Mather's improved machine.

Such conclusion, if solely dependent on this experiment, might have been considered hastily adopted, but it resulted also from several experiments which, whilst engaged in putting up the machinery, had casually suggested themselves to me, and which seemed to embrace both points, the effective character of the machinery moved by bullock power, and the completeness of the improved churka, as constructed by Mr. Mather.

In these experiments I had ascertained that a more rapid revolution of the rollers produced by turning the machinery by coolies at a running pace, perhaps exceeding four miles an hour, which was easily done under the inconsiderable friction arising from a single churka, Mr. Mather's churkas yielded at the rate of 12 lbs. per day, nearly two and a half times the result in our subsequent regular trial; and I think I am justified in assuming this to be a quickness of movement which the usual draught cattle here could not attain, and certainly not maintain for any length of time. But whilst we were thus advancing towards the Calcutta out-turn, though still greatly below it, and, it seems to me, had established the inadequacy of bullock power with the machinery set up, the common churka with the driving-wheel gave a produce which appears to settle the question of the relative efficiency of the two forms of the machine, turning out at the rate of nearly 44 lbs. per diem, little short of four times the quantity of the Mather churka then in activity under the same power, and almost twice the most favourable result arrived at in Calcutta under Mr. Mather's own superintendence; whilst, moreover, so far as my observation went, the maximum desirable velocity of revolution of the rollers had not even then been attained.

The native churka required some alteration to enable it to withstand the vibration resulting from the rapid movement under the substitution of the driving-wheel for hand power; a third standard seemed to me essential, and greater stability, and as the cost was less than five rupees I considered that it was desirable to construct two of such description, and include them in a further trial of Mr. Mather's at greatly accelerated velocity; as immediately subsequent to the trial now under report, letters from that gentleman pointed out that our arrangements were objectionable, from having used his churkas as sent up from Calcutta, instead of roughing the rollers by the chisel or sand-paper. To this he attributed the diminished out-turn in our casual trials whilst erecting the machinery, which I had incidentally noticed in my correspondence with him. I have directed two or three of his churkas to be thus prepared, and the result will be shown in a further trial, for which this report is detained.—Agra, 30 May 1849.

The trial above adverted to took place on the 5th instant. It had been thus long deferred from unavoidable delay in the construction of the native churkas, with the additional standard, and subsequently by the unfitness of the cotton, arising from the dampness of the atmosphere. Both Mr. Mather's churka and the native one worked perfectly, and the relative out-turn accurately represents their relative capability; but neither had the advantage of a practised feeder, as I had been disappointed in obtaining the men I had selected, and none of the coolies were experienced hands, so that at last we were forced to put up with a working carpenter in attendance for adjusting the machinery.

Captain Oldfield gives the number of revolutions per minute of the several rollers, which I of course left to him, chiefly confining my attention to the apparent effect of the great velocity of revolution of the rollers, which, compared with that of our former trial on the 25th May, was as 400 to 53. The result, as regards the separation of the seed by the native churka relatively to that trial, was as 40 to 12, and only as 40 to 44 with reference to some of my former experiments. But I am persuaded, had the same feeder been employed on both occasions, the result would have been widely different; for I particularly remarked that, at the most rapid rate, the seeds were forcibly thrown off, and the cotton passed through without the slightest impediment.

It was manifest that this high working velocity cannot be maintained with the native churka fitted with a driving wheel, the vibration resulting from the extremely rapid revolution of the rollers, considerably above 1,000 times a minute in the iron one, having so very sensible an effect in our short trial as to render one doubtful if the churka would stand to the end of it. Cast-iron standards, however, would be little costly; and these, and the substitution of brass in which the iron endless screw should move, in the place of the wooden one on which it now works, would, by greater durability and less friction, afford a very effectual machine at a very trifling expense.

The result of these trials appears to me to have completely established that the Mather churka is not the improved form of that machine which it is desirable to follow; and that the common churka, with a driving wheel, far exceeds it in efficiency. With the suggested improvements, I imagine the cost of a churka would not exceed 10 rupees.

It must not, in justice to Mr. Mather, be omitted, that the cotton turned out by his

I.
Bengal and
North Western
Provinces.

churka was beautifully clean, and well opened out by the action of the brushes. Cotton from the native churka will require a similar process; and I am inclined to think that a machine I am making up, and which I explained to Captain Oldfield, as I see he has noticed, will have this effect in a very superior degree. One will suffice for 20 or 30 churkas.

I have not a doubt that we have reached one of the great objects urged on the notice of the Honourable the Court of Directors by the Liverpool merchants as of the highest consideration. I am persuaded that, so far as ginning the cotton from its seed with rapidity and unbroken fibre, we surpass the American saw-gin, and that, in preparing it for the market, the charges incurred will not equal those when the saw-gin is in use. I believe we have done so much; but this will not avail to make India a participator in the cotton trade of England, so long as American cotton can be sold in England at $3\frac{1}{2}d.$ to $4d.$ per pound.

Captain Oldfield's report is herewith transmitted.

Agra, 12 July 1849.

(signed) *H. Hamilton Bell.*

(True copy.)

(signed) R. Thornton,
Assistant Secretary to the Govt., N. W. P.

No. 15.
Enclosure.

MEMORANDUM on the Trial made of the Experimental Cotton-cleaning Machines at Agra, on the 25th May 1849, consisting of Eleven of the Machines sent up by Mr. Mather, and Two Native Churkas, with Driving-wheels differing in Diameter.

THESE machines were attached to a capstan, with four pair of bullocks working at the bars. The pace of the bullocks was about two miles an hour, and the revolutions of the brushes of the English machines about 200 per minute. The result was that in half an hour eight of the machines had turned out 29 oz. of cotton and 53 oz. of seed; *i. e.* 82 oz. or about five lbs. of kupas had been cleaned in half an hour by eight machines worked by eight bullocks. Three of the machines had been thrown out of gear during the working by the shifting of the driving bands of the steel rollers.

The average of clean cotton produced by each machine was $3\frac{1}{8}$ oz. in half an hour; thus a day of 12 hours would have produced but $5\frac{1}{2}$ lbs.

The native churka, with a driving wheel of three feet, was making about 53 revolutions of the wooden roller per minute, or about the same as that of the English machines, the iron roller working on the wooden one by means of an endless screw, in the manner usual to native churkas.

The out-turn was eight ounces of clean cotton, being 12 lbs. for the 12 hours, or double the quantity turned out by the English machines.

The other native churka, worked with twice the velocity of the former, produced but five ounces in the half hour.

This last was ill set up, and the experiment was not conclusive against the higher velocity. Further trials are much needed as to the best velocity, and the experiment may be easily and cheaply carried on, by attaching various sized driving wheels to a dozen native churkas, which cost but eight annas each.

I do not observe that Mr. Mather has anywhere stated what he considers the best velocity, nor the force required for driving his machines at this and at lower velocities; he has thus given no estimate of the probable cost of cleaning cotton by the machines made up by him, although his attention was called to this point by the committee which examined at Agra the machine he brought up with him from Calcutta.

The small out-turn of the machines in the trial of the 25th current is doubtless in part owing to the want of a fly wheel to equalise the velocity attained, the motion of the bullocks being very irregular; most probably, also, the best velocity was not attained. The bullocks, however, seemed to have full work, and the pace of two miles an hour is perhaps that best adapted to husband their strength.

The machine seems to have received little or no improvement from Mr. Mather, but to be similar in almost every respect to what it was when he first introduced it to notice, unless the screw and brass, being marked H and I in the plates accompanying the description in the Journal of the Agricultural and Horticultural Society, is an improvement of Mr. Mather's on the original machine. But of this the most has not been made; as it would, by giving an additional point when force is applied to keep the wooden and iron rollers in adjustment, have allowed an additional length to have been given to them, and thus have obviated one of the disadvantages which the driving gear projecting close at the ends of the rollers causes, *viz.*, lessening the freedom of action in the feeder, who is much more cramped in his action than in the native machine.

It seems as if by a little ingenuity much longer rollers might be driven by one set of wheels, their adjustment to contact at intervals being effected by supports and adjusting screws, similar to those in the middle of the roller of the present machine.

The feeding now has likewise been inconveniently placed, by which also the feeder's movements are cramped.

To

To the more unconstrained posture of the feeder I attribute the greater out-turn of the native churka on this trial.

There may be likewise some advantage in the slightly tapering or conical form observable in the rollers of the native churkas.

Certainly the seed was cleanest in this experiment for the native churka, which I attribute partly to the diagonal direction, through the rollers, given to the cotton caused by their taper. Driving the steel rollers, as in the Calcutta machines, by a short band, is decidedly objectionable, and is a frequent cause of delay. On the whole, I think it is a pity that, before any number of these machines were made, they should not have had a few months trial in constant work, to try the efficiency of the adjustment required by the wear of the rollers, to have the best speed; the best form of roller; of communicating motion to the steel roller, whether by a second set of cogged wheels or by the endless screw, and other practical adjustments, which I conclude want of leisure has prevented Mr. Mather from attending to.

Moreover, it does not appear, as recommended by the committee to which the machine was originally shown at Agra, that it was submitted to the Mint Master and Superintendent of Government Machinery at the Presidency, whereby the cost of making up so large a number of these unimproved machines might have been avoided.

Agra, 25 May 1849.

(signed) J. R. Oldfield,
Captain, Engineers.

4 July 1849.

Postscript.—A trial was made this morning between one of the English churkas and a native churka with wooden standards, and a driving wheel on the wooden roller five inches and a half in diameter, or an inch less than that on the brush of the English machine. The velocity with which this wooden roller revolved was thus about four times greater than that of the other. (I have not the plan or measurements of the machine by me, but this is a sufficient approximation.)

The capstan was worked by eight men, who travelled at the rate of between three and a half and four miles an hour. The rate of revolution of the wooden roller in the native churka may therefore be taken at 400 per minute; of the English machine at 100.

The trial lasted a quarter of an hour, in which time the English churka turned out $5\frac{2}{3}$ oz. of cleaned cotton, the native churka $13\frac{1}{2}$; the former being 17 lbs. per diem of 12 hours, the latter 40 lbs.

The best feeder being at the native churka, the feeders were changed, and both machines worked again, but for five minutes only; the results were $4\frac{1}{2}$ oz. by the native, and $2\frac{1}{2}$ oz. by the English churka. Supposing both to have been fed by the best feeder the results would be as 40 to 20 nearly.

These results so far confirm those of the 25th May last, that they show an inferiority in the out-turn of the English machine, caused principally by the difficulty of feeding it consequent on its present construction. The native machines, or one worked directly from the principal shaft, with endless screw communicating the motion from the wooden to the steel roller, works with less friction, and must therefore pay best, *i. e.*, be less costly in working. The working the brush at a high velocity, and then taking off a lower velocity for working the wooden roller is a great waste of power, and though the machine with the endless screw must have metal standards and gear to work at the great velocity required, it will still be a simpler and less expensive machine than the one made by Mr. Mather.

The great out-turn of the native churka this morning proves the advantage of a high velocity; the necessity of an equable motion is also obvious. Steam power is therefore essential to any useful result. At the rate reached this morning, one person is fully employed in feeding; there is thus no loss of labour in his not having to create the motive force in addition.

Mr. Bell has suggested that the brushing process would be best carried on separately with large machines, fed with cleaned cotton, and worked at very high velocities, and in this I agree with him, as the friction and cost of a great number of these brushes, whose size is necessarily restricted by the shortness of each cleaning roller, must be greater than that of a single brush many times larger, and doing more than a proportionate quantity of work.

Agra, 4 July 1849.

(signed) J. R. Oldfield,
Captain, Engineers,

(True copy.)
(signed) R. Thornton,
Assistant Secy. to the Govt., N. W. P.

(No. 2632 of 1849.)

From J. Thornton, Esq., Secretary to the Government, North Western Provinces, to
H. H. Bell, Esq., Agra.

Sir,

In reply to your letter, dated 12th ultimo, I am desired to return the thanks of the Honourable the Lieutenant-governor for the reports transmitted by you on the improved

296—Sess. 2.

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cotton

No. 16.
Enclosure.

I.

Bengal and
North Western
Provinces.

cotton churkas prepared by Mr. Mather for this Government, and to state that the reports will be forwarded for the information of the Supreme Government.

2. The Lieutenant-governor requests that you will have made up, at the expense of Government, some native churkas, with improved metal standards, as proposed in your letter under acknowledgment. The number to be constructed, and the place where they are to be made, are left to your discretion. You are also requested to have an experimental machine prepared for cleaning cotton on the plan you propose, separate from the churkas, but which may be driven by the same motive power. His Honor desires that you will favour him with a report on the working of these machines, as soon as conveniently practicable.

Head Quarters,
13 August 1849.

I have, &c.
(signed) *J. Thornton*,
Secretary to the Govt., N. W. P.

(True copy.)
(signed) *R. Thornton*,
Assistant Secy. to the Govt., N. W. P.

(No. 493.)

No. 17. From *W. Grey*, Esq., Under Secretary to the Government of India in the Home Department, to *F. W. Simms*, Esq., Civil Engineer.

Sir,

I AM directed by the President in Council to forward, for communication to Mr. Mather, the accompanying copy of a despatch from the Government of the North Western Provinces, dated the 13th ultimo, with enclosures, detailing the results of some trials which have been made of the cotton machines manufactured by him last year for that Government.

Council Chamber,
1 September 1849.

I have, &c.
(signed) *W. Grey*,
Under Secy. to the Govt. of India.

EXTRACT from the Proceedings of the Honourable the President of the Council of India in Council, in the Home Department, under date the 29th September 1849.

No. 25. From *F. W. Simms*, Esq., Civil Engineer, to *W. Grey*, Esq., Under Secretary to the Government of India; dated Cossipore, the 20th September 1849.

Sir,

As instructed in your letter (No. 493 of the 1st instant), I have submitted to Mr. Mather the reports of Mr. Bell and Captain Oldfield (enclosed therewith), upon his (Mather's) cotton-cleansing machines, with a request that he would forward, for the information of Government, whatever observations he might have to make thereon. I now forward his remarks.

It was also my intention of examining and reporting upon the state of the machines now being constructed by Mr. Mather in the Government Iron Bridge Yard, but the state of my health not permitting me to do so, I deputed my Assistant, Mr. John Fraser, to that duty, and his report I also enclose.

As respects the cotton-cleansing machines, which are the subjects of Messrs. Bell and Oldfield's reports, I cannot refrain from stating that I consider it is much to be regretted that Mr. Mather was not sent to Agra to fit them up and set them to work, as appears to have been originally the intention of the Government of the North Western Provinces, for that would have been the most satisfactory to all parties. And I will here take the liberty to recommend to Government, as soon as the machines which Mr. Mather is now making are completed, to send him to put up and set to work the first set that is erected; and, as the cotton cultivation experiments at Agra have ceased for some time, by order of the Court of Directors, in consequence, as I understand, of the unfavourable reports of the cotton of that district, I would further advise that, for setting up the new machines, particularly the first set, the best and most favourable cotton-growing district in India should be selected for that purpose, wherever it may be; and that the experiments or trials should not be limited to a few minutes, or even an hour, or a day, but that the machines be set actually to work upon a tolerably large scale, and clean sufficient cotton to forward to England, where its qualities as an article of commerce, and its comparative value with similar cotton cleaned in the old way, would be determined by the most competent judges, namely, the cotton traders and manufacturers; and also by such a trial their economical value, in comparison with the native churka, or whatever machines they may be tried against, will be most satisfactorily ascertained. Such appears to me the proper way to test the merits of Mather's or any other machines, and enable the Government and the public to judge how far the outlay incurred has been advantageous to that branch of commerce.

I have, &c.
(signed) *F. W. Simms*, C. E.

From *J. Fraser*, Esq., Assistant Civil Engineer, to *F. W. Simms*, Esq., Consulting Engineer to the Government of India and Director of the Railway Department, dated Calcutta, 10th September 1849.

Sir,

IN obedience to the instructions I received from you on the 7th instant, to visit the Iron Bridge Yard, and inspect the eight sets of cotton-cleaning churkas now making up there by Mr. Mather, and to report to you the state of forwardness they are in, I have the honour to submit the following statement, which will show the exact state of the work at the present time, and also the improvements introduced by Mr. Mather since the first set of 12 machines were made up for the Government of the North Western Provinces last year.

2. Five sets of machines are set up, namely, the cast-iron work as well as the wrought, the shafts, gun-metal brushes, the driving pullies, and holding-down bolts. The rollers and toothed wheels are now being fitted to the above.

3. The cast-iron frames for the sixth set are likewise ready, and are now being fitted up.

4. Part of the castings of the seventh set are also made; the wrought-iron stays and brush boards for all the eight sets are complete; so that I think there is every probability of the whole of the eight sets being finished by the end of December this year.

5. Having stated the progress made towards the construction of the eight sets of machines, I will now mention the improvements introduced by Mr. Mather, and which I think are deserving of especial notice; they are as follow:—

6. The two rollers are fitted in a slide worked in the cheeks of the frame of each machine, and fixed at an angle of 22° ; the steel roller thereby being brought forward does not occupy the vertical position with regard to the wooden roller that it did in the former machines, as suggested by yourself in your public report to the Supreme Government.

7. The strap used for driving the steel roller is now abolished, the wood and steel roller being made to work by means of two endless screws; that attached to the wooden one is of brass, and that on the steel roller worked out of the same metal as the roller itself. The endless screws just mentioned are exceedingly well cut by a self-acting screw-cutting lathe, which Mr. Mather has hired at his own private expense, owing to the Government being unable to supply him with one suitable for the purpose; and without it these screws could not have been cut. The screw attached to the wooden roller is six-threaded, and that on the steel one two-threaded.

8. An alteration has also been made in the spindle which runs through the wooden roller, by which the wood can be removed, when worn out, and a new piece substituted by any village carpenter, without (as in the former machines) its being requisite to fresh turn the bearings of the spindle.

9. The steel roller is turned with a slight taper towards each end, the same as the common native churka; the centre brass bearing has been abolished, and consequently the iron bar above it to which the said screw was attached. By this arrangement much additional room is given to the feeder, and his movements are less impeded. I must here explain that, in order to bed the taper steel roller firmly on the wooden one, a corresponding concave taper is turned out of the latter.

10. A large spur wheel is fixed on the lower axle, by which motion is communicated to a pinion on the wooden roller; an arrangement which has greatly the advantage over the former method of driving by bands, as it not only (with the addition of the endless screw) increases to a certainty the number of revolutions of the steel roller per minute, but prevents any loss of power, having the security of cogged gearing. One of the machines was worked in my presence with a driving wheel of 2 feet 8 inch diameter, and a velocity of upwards of 1,200 revolutions of the steel roller per minute was obtained with ease, and I am certainly of opinion that the machines should not be worked at a slower rate.

11. An intermediate brass bush (or bearing) has also been introduced between the two rollers, at each end, so as to give the steel one a separate bearing, and not as in the former machines, where it was allowed to revolve and bear on the surface of the wooden roller, which in course of time would so abrade the surface of the wood that no cotton could pass cleanly through them. The said bush is made to work perfectly clear of the axle of the wooden roller, and consequently no friction is added to the working of the churka by the introduction of it.

12. I may here add that Mr. Mather has, at his own cost, made up two small machines experimentally on a new plan without brush fans, and has likewise tried various experiments with different descriptions of endless screws, rollers, and speeds, in order to ascertain the very best possible form of construction for the machines. They are worked with two endless screws as in the machines now under discussion; but the rollers are placed vertically over each other, and not at the angle of 22° , as in the eight sets now in progress.

I.
Bengal and
North Western
Provinces.

13. During my inspection I saw a small quantity of cotton passed through the two last-named churkas, and observed that the absence of the brush revolving on the back of the rollers caused them to clog, which delays the feeder in his work, as the machine had frequently to be stopped to clear the rollers of the superfluous cotton adhering to them. From previous observation, and from every trial I have witnessed, I am convinced that the brush is just as essential to clear the rollers and prevent them from clogging, as it is for opening out the cleaned cotton.

14. In conclusion, I wish to remark that the castings are excellent, and that the fitting-up and workmanship of the machines reflect great credit on Mr. Mather.

I have, &c.
(signed) J. Fraser,
Assistant Civil Engineer.

No. 27.

From J. H. Mather, Esq., C. E., Superintending Government Cotton Experiments, to F. W. Simms, Esq., C. E., Consulting Engineer to the Government of India, &c. &c.

Sir,

I HAVE the honour to acknowledge the receipt of your letter of the 7th instant, together with its several enclosures as noted in the margin thereof, and I now proceed to offer a few remarks regarding the manner in which the trial of cotton-cleaning machines at Agra was conducted, as reported to the Government of the North Western Provinces by Mr. H. Hamilton Bell and Captain Oldfield.

2. I forward with this letter, for the information of Government, detailed replies to all the principal points urged in this report (Appendix A.). For the sake of an easy reference I have drawn up these replies in parallel columns with the particular passages in the report to which they have reference. From these replies it will be seen that I attribute the apparent failure of the experiment to my not having been allowed to erect the machines myself, and to regulate their speed, &c. at their first trial. When I made my arrangements with the Government of the North Western Provinces in September 1847 to proceed to Calcutta to manufacture these machines, I specially stipulated that I should be allowed to return with them when finished, and to erect them at Agra; and in the letter from the Secretary to Government, North Western Provinces, to Mr. C. Allen (who was then in charge of the cotton operations at Agra) conveying the sanction of Government to my proposed visit to Calcutta, it is stated, "all these proposals meet with the entire concurrence of the Lieutenant-governor; you are therefore requested to make arrangements for paying the expenses of Mr. Mather's journey to Calcutta, and of his return with the required machinery, as well as for the payment of his salary during his absence." When the machines were ready for despatch to Agra, I wrote several private letters to Mr. Hamilton Bell, strongly urging him (as the late Government cotton agent) to remind the Government, North Western Provinces, of the arrangement above alluded to; but in reply Mr. Bell merely informed me that he was confident that I should not gain anything by visiting Agra. And again, on 30th March last, nearly two months before the first trial of the machines took place, I again reminded him in a demi-official letter (*see* Appendix B.), of my strong desire to be allowed to superintend the trial. You will yourself remember my having more than once brought this subject to your notice, and in my official letter to you of 8th December last, when dispatching the machines from Calcutta, I again noticed the change that had been made in the original arrangements of the Government, North Western Provinces, and at the same time requested that strict attention might be paid to the directions regarding the machines which I furnished; and I would here notice that strict attention does not appear to have been paid at Agra either to the directions forwarded as an enclosure with my letter to you of 8th December last, or the suggestions subsequently made to Mr. Bell in my letter of the 30th March (*see* Appendix B.). In the former case I particularly directed that it would be necessary, before working the machines, to roughen the surface of the wooden rollers, first cleaning them with sand-paper, and then rubbing them over with a stone in the same manner as the native prepares his churka for work; but from Mr. Bell's report it appears that this was not done till the 5th July, when the second recorded trial took place; the machines had therefore at the first trial (on 25th May) as well as at the "repeated trials" which Mr. Bell says he had previously made, "singly and with a few machines," been set to work without any attention being paid to the above direction; and this alone, coupled with the fact that the steel or copper rollers had been greased (to prevent rust) before leaving Calcutta, would cause the machine to work very imperfectly, as the rollers would not be in a state to "bite" or draw forward the staple. Again, in my letter of 30th March (Appendix B.), I suggested the introduction of certain intermediate gearing, by which the working speed of the machine would be considerably increased. I sent a working drawing of the same with my letter, and pointed out that the shafts and pullies required were to be found among the old cotton machinery at Agra; but this suggestion appears also not to have been acted on. In the same letter I also noticed that the bullock mill which Mr. Bell had selected for driving the machines would probably be found too heavy for the purpose, but notwithstanding

See Mr Secretary
Thornton's letter
to Mr. Allen, dated
Head Quarters,
30 September 1847,
Para. 5.

standing this suggestion, and the fact that there was another and lighter bullock mill at hand and available for the purpose, this heavy mill is retained.

3. The next point to which I would direct the particular attention of Government is a most important one. While at Agra in June 1847, I set to work a rough machine, alluded to in my reply to Extract 2 in the subjoined statement, which comprised all the most important alterations which I subsequently introduced into the Calcutta-made machines, but which laboured under many disadvantages, on account of my having neither workshop or tools available at Agra. (The machine here alluded to is the one which, together with Mr. Potter's, was shown to you when you first took charge of the supervision of my work in December 1847.) The roller had not an iron spindle through it, the bearings consequently were of wood, and the heavy spur-wheel keyed on to the wood caused the roller to spring and work imperfectly; yet, notwithstanding this and other disadvantages, the committee appointed by the Lieutenant-governor thus report on it, when placed in competition with the native churka:—

“The trials thus gave a rate of $7\frac{1}{2}$ lbs. or $3\frac{3}{4}$ seers of seed cotton in the hour to the machine, and 4 lbs. or 2 seers of kupas to the churkas. Divide the weight of seed cotton by 3, the usual proportion of wool in each case, and we have $1\frac{1}{4}$ seer in an hour for the machine against $\frac{2}{3}$ of a seer for the churka, or a very small fraction more than half.” Now, from the description given above of the rough machine, it must be apparent that if under all the disadvantages adverted to, an out-turn of $1\frac{1}{4}$ seer of cleaned cotton per hour (or 30 lbs. per day of 12 hours) was obtained from it at Agra (as above recorded), a much larger out-turn would naturally be the result from the same machine properly and mechanically constructed, and after the native feeder had by a few weeks' practice become accustomed to it. But Mr. Bell and Captain Oldfield state that at their first trial, on the 25th of May, the machine only gave an out-turn of $5\frac{1}{2}$ lbs. for a day of 12 hours, and at the second trial, on the 5th of July, an out-turn of 17 lbs. per day of 12 hours. The extraordinary difference between the results of these two trials, together with the fact above mentioned, of my rough machine having turned out at the rate of 30 lbs. per day of 12 hours, ought surely to have induced Messrs. Bell and Oldfield to have had a third trial as a simple matter of justice to my machines; but by his report Mr. Bell (who took the principal part in these trials, and to whom the erection of the machines had been entrusted) appears to have made up his mind at the time of the first trial, on the 25th of May, “That no advantage could be derived from perseverance with the ‘Mather’ churka as made up in Calcutta.” These are the words recorded by Mr. Bell in the former portion of his report, bearing the date of 30th May, and neither the increased out-turn of the 5th of July (being 17 lbs. instead of $5\frac{1}{2}$ lbs., as on 25th May), nor the facts that the machines were imperfectly erected, and driven at too slow a speed, appear to have had any influence with Mr. Bell, who subsequently to the last trial records in his report, “The result of these trials appears to me to have completely established that the ‘Mather’ churka is not the improved form of that machine which it is desirable to follow.” Mr. Bell ought, I think, to have here stated that he had been in constant private communication with me for the last two years, and that during the last six months I have from time to time informed him of the alterations and improvements which I am now introducing into the eight sets of machines now making up here, some of which alterations thus communicated are very important, and one of which (viz., a brass screw on the wooden roller) I perceive he suggested for his new churka, but omits to mention that he received information from me more than three months ago on this very point, together with an account of my self-acting screw apparatus.

4. Another point to be noted is, that by Captain Oldfield's report, it appears that the first trial on 25th May lasted only for half an hour, and that of the 5th July only for one quarter of an hour, so that after two trials, together lasting only three-quarters of an hour, my machines are condemned. The object of sending these machines to Agra was that they might be practically tested, for which a trial of a month or six weeks, without cessation, would have been by no means too long; a comparative petty trial of half an hour could have been just as well tried in Calcutta or elsewhere, and was tried by a special committee assembled in Calcutta, at the request of the Agricultural and Horticultural Society of India, jointly composed of scientific officers and of merchants conversant with the valuation of cotton in the English markets, and at the recommendation of this committee the Society awarded to me their gold medal and a premium of 500 rupees.

5. On a perusal of this letter and its enclosures, I am convinced that you will coincide in the opinion which I have arrived at after reading the reports, viz., that justice has not been done to my machines; that they were imperfectly erected in the first instance; that the trials lasted for far too short spaces of time; that a third trial ought decidedly to have been made; that attention was not paid to my written suggestions; and that there appears to have been a tendency throughout the trials on behalf of the judges to arrive at hasty and unsound conclusions.

6. With regard to Captain Oldfield's assertion, that it does not appear that the making up of so large a number of machines (viz. twelve) was sanctioned by the Mint Master, I have only to state that I was in communication regarding these machines with both Colonel Forbes and Colonel Greene, and that, up to the date when Mr. Secretary Bushby informed me that you would in future supervise my work, I acted with the full concurrence of both

I.
Bengal and
North Western
Provinces.

See letter from
C. Allen, Esq. to
J. Thornton, Esq.,
dated Agra,
13 September 1847.
Para. 12.
(Appendix C.).

I.
Bengal and
North Western
Provinces.

these officers. And with regard to the number of machines made up (twelve), so specially alluded to by Captain Oldfield, I herewith enclose an official letter from Colonel Greene, as officiating Mint Master (Appendix D.) authorising the construction of this number of machines. It further appears from Mr. Officiating Secretary Allen's letter to Mr. Secretary Bushby, dated Agra, 13th July 1848, (an extract from which forms Appendix E.) that the fact of such authority having been granted to me by Colonel Greene was well known to the Government of the North Western Provinces, and information thereof would no doubt have been readily granted to Captain Oldfield, had he requested it. You are so well aware of the circumstances attendant on the transfer of the supervision of my work to yourself, owing to the departure of Colonel Forbes for England, in December 1847, that I need not further allude to this matter.

7. In conclusion, I have to request that, in forwarding this letter to Government, you will at the same time take notice of the alterations introduced by me into the machines now constructing, and of which you have lately had an accurate account taken. As I have repeatedly stated to you, I never considered the twelve machines sent to Agra as perfect, but simply as an improvement on any then existing churkas; and since their dispatch I have spared no exertion to introduce all such additional improvements, as the experience of myself and others could suggest, into the machines now making up; and I trust that the Government may hereafter enable me, by placing the erection and first working of these machines under my sole charge, to prove that the expense incurred in these experiments has not been thrown away.

Iron Bridge Yard, Allipore,
19 September 1849.

I have, &c.
(signed) *J. H. Mather, C. E.*

MEMORANDUM OF ENCLOSURES.

- Appendix (A). Extract from Mr. Bell's Report, and Remarks thereon.
- Appendix (B). Extract from a Letter addressed to Mr. Bell, dated Calcutta, 30th March 1849.
- Appendix (C). Mr. Allen's Letter to Mr. Thornton, dated Agra, 13th September 1847, containing Report of Committee.
- Appendix (D). Colonel Greene's Letter, dated Calcutta Mint, 18th December 1847.
- Appendix (E). Extract from Mr. Allen's Letter to Mr. Bushby, dated Agra, 13th July 1848.
- Appendix (F). Memorandum on Cotton Machines, by Mr. T. H. Mather, dated Agra, 25th August 1847.

(signed) *J. H. Mather, C. E.*

Appendix (A.)

No. 28.

EXTRACTS, &c. from the Report of Mr. *H. Hamilton Bell*, on the Trials of Cotton-Cleaning Machines at Agra.

Mr. *J. H. Mather's* REMARKS.

1. "On the arrival at Agra of Mr. Mather, civil engineer, whose assistance, as scientifically and practically acquainted with machinery, had been engaged, his first attention was turned to the practicability of the adaption of the existing saw-gins to the cotton of this country, and when after repeated trials this was declared hopeless."

2. "Regarding Mr. Potter's churka, which Mr. Mather had brought up from Calcutta, the report says, 'This was regarded by all connected with the experiment with much complacency,

1. By this it would appear that Mr. Bell implies that I failed to accomplish what I attempted; I however most distinctly state that I neither superintended, took part in, or witnessed any trial of American saw-gins at Agra. I was repeatedly urged to do so by Mr. C. Allen, C. S., and by Mr. Bell, but always positively declined, being fully convinced from past experience in the Madras Presidency, that they were quite unsuited for the Agra cotton.

2. By reference to the report of the Committee (Appendix C.), assembled at Agra, by order of the Lieutenant-governor, on the 25th of August 1847, for the purpose of testing

Extracts, &c. from the Report of
Mr. H. Hamilton Bell—continued.

Mr. J. H. Mather's Remarks—continued.

I.
Bengal and
North Western
Provinces.

complacency, as it was neither more nor less than the native churka assumed to be improved by more skilful manufacture.'"

testing Mr. Potter's machine, which I had brought up from Calcutta, it would appear from para. 7 that the said Committee were by no means disposed to regard Mr. Potter's machine with complacency, for, as stated in

the report (Appendix C.), "the wool turned out by the machine was not so free from seed as that turned out by the native churka," and I was requested to alter the machine in such a manner as I thought best; in effecting this alteration, so complete a change was made in the most important part of the machine (viz., the diameter of the rollers), and such additions were likewise made to it, that it was in reality a new machine, the frame and driving wheels being the only remaining parts of the Potter churka. When the Committee at Agra first met on the 25th of August 1847, I handed to them a memorandum explanatory of the native construction, and dimensions of the Potter machine (a copy of this memorandum is attached hereto, Appendix F.), and in the 6th, 7th, and 8th paras. I detailed my objections to this machine, and pointed out what would in my opinion constitute an effective cotton-cleaning machine. At the second meeting of the Committee, on 2d September 1847, the altered, or as it may be called, the new machine, was exhibited (*see* paras. 9, 10, 11, and 12 of the Committee's report, Appendix C.); it therefore appears from their report, that it was this machine, and not Mr. Potter's as brought up from Calcutta, that the Committee regarded with complacency.

3. "The machines sent up from Calcutta by Mr. Mather to Agra, in December 1848, are spoken of in the report as 'a brush and iron grating attached to the Potter churka,' and the use of the brush is said to be that of 'cleaning and opening out the cotton after it passed through the rollers.'"

3.¹ In my reply to Extract 2, and reference to Appendix C. and F., I have shown the difference which existed between Mr. Potter's machine and the rough one made up by me at Agra, and tried on the 2d September 1847; and I have only here to state that the machines despatched to Agra in December 1848 were in all important points similar to the rough one above

alluded to, with the exception of the wooden roller having been increased a quarter of an inch in diameter, this having been found absolutely necessary in order to admit of an iron spindle being passed through the roller; and I would leave it to any party who saw my machine, together with Mr. Potter's and others, exhibited in September 1848, in the Metcalfe Hall, to say whether "a brush and fan attached to the Potter churka," is either a fair or correct description of my machine. It is moreover well known to all who have examined the machines while at work, that "cleaning and opening out the cotton after it passed through the rollers" is a most imperfect description of the functions of the brush, the chief and most important use of which is the clearing of the cotton from off the rollers, and preventing its clogging, and ultimately requiring to be picked off with the hand, the machine being stopped for the purpose. Mr. Bell appears throughout his report entirely to have overlooked this most important service performed by the brush, as well as the all-important necessity of adapting the diameters of the rollers to the description of cotton to be cleaned, and must surely have retained a very imperfect recollection of Mr. Potter's machine when he thus compared it with mine.

4. "If by inexpensive machinery 12 of these could be kept in regular motion for a day's work of 12 hours, so that the out-turn would be 300 lbs. per day, more or less, I should have been disposed to say that he had solved the problem of the description of machine which might be advantageously employed in this country for freeing cotton from its seed."

4. I still assert that by proper management the 12 machines driven by a common wooden bull-wheel mill will turn out upwards of the weight of cotton here named by Mr. Bell.

5. Regarding the erection of the cleaning house and my machines at Agra, Mr. Bell states, "This has been accurately done by Mr. Mackenzie."

5. The arrangements made for the erection and trial of the machines at Agra are, in my opinion, the cause of the apparent failure that has taken place. I am decidedly of opinion, that had I been allowed, as was originally arranged, to return to Agra for the

the purpose of erecting the machines, and setting them to work, the result of the trial would have been very different. I have no desire to depreciate the value of Mr. Mackenzie's services, but in justice to myself I am bound to state, that from what I saw of his work while at Agra, and from the fact of his never having served a mechanical apprenticeship, having come to Agra as an assistant in a general provisioner's establishment, I do not consider him competent to set up new machinery, or to arrange speed pullies and gearing. Moreover, by a private letter from Mr. Bell, I am informed (and this is not mentioned in the report), that in addition to mine, two other machines constructed for a similar purpose were submitted to a comparative trial with mine, and that one of these machines was made by Mr. Mackenzie, who, on this account alone, should, I conceive, not have been selected to set up my machines.

6. "Whilst completing all necessary arrangements, repeated trials have been made singly, or with a few churkas, but in these the largest result obtainable has not passed 12 lbs. as a product of a day of 12 hours. This seems to me to determine that we have not so adjusted the churkas, or managed the power, as to avail of their capability to the fullest determined extent."

7. "The trial of the 25th of May was attended with great disadvantage of the gearing having become loose and out of order by a change of the wind to the east during the preceding night, after it had been well set up, which necessitated the adjustment of the leathern straps, and after all these worked imperfectly, and, in fact, would not work at all in some cases."

of trial was incapable of performing the work assigned to him, as by the exercise merely of common sense he should have been able to have tightened all the straps, and made them work properly, whichever way the wind might blow; but it appears that not one strap was working properly at the time of trial, and that some did not work at all; under these circumstances it is strange that Messrs. Bell and Oldfield thought fit to record the out-turn of the machines, and that they did not adjourn the trial till the straps were properly fitted.

8. "The bullocks were estimated to travel at the rate of two miles per hour. Four pair were employed, but it was not ascertained how much of their power was exhausted in putting the rather heavy machinery, which originally was made use of for working the American saw-gins, in motion, or how much was superfluous."

9. "In my opinion, the number of revolutions of the rollers resulting from the existing machinery turned by bullocks driven at this pace, would be quite inadequate to the effectual working of the churka, and though Mr. Mather's scientific mechanical knowledge might probably remedy this easily, I feel myself bound to express my opinion that bullock power with the machinery in
use

6. I do not consider that these trials ought fairly to have been made before the machines were finally erected; the arrangements, when said to be complete, appear, by the trial of the 25th of May, to have been most sadly deficient; what, then, may they be supposed to have been when these previous trials took place?

7. Mr. Bell does not here specify what he includes under the term of gearing; a practical engineer would, in this case, understand it to mean the cogged wheels of the bullock mill used on the occasion, but on these the east wind could surely have had no effect, and this leads me to suppose that the term refers solely to the leathern straps; if this be the case, it clearly proves that the party in charge of the machines at the time

8. I am at a loss to understand why this machinery, which Mr. Bell calls rather heavy, but which I consider far too heavy, was made use of for this purpose, as there is another lighter set of bullock machinery at Agra already erected in the saw gin house, which might have been used for driving these machines. On the 30th of March last, having heard that this heavy machinery had been selected, and was being erected, I wrote a demi-official letter to Mr. Bell (an extract of this letter forms Appendix B.), expressing my opinion that this machinery was too heavy for working my machines.

9. From a perusal of this extract, it might be supposed that I had sent up the bullock machinery used at the trial; but this is not the case, as may be seen by reference to Extract 8, where Mr. Bell speaks of it as having been used for working the American saw gins. The bullock machinery referred to was formerly sent from England, and reached Agra with the American planters,
about

Extracts, &c. from the Report of
Mr. H. Hamilton Bell—continued.

Mr. Mather's Remarks—continued.

I.
Bengal and
North Western
Provinces.

use as sent up, will not produce the results expected by Mr. Mather, and that in this respect the experiment has failed."

Agra for the trial, and I have further to state, that with the appliances already at Agra, any practical mechanical engineer could set the machines to work. As to the number of revolutions to be given to the rollers, I have always declined giving any positive opinion on the subject, this being one of those points on which I could only form a correct opinion after having set the machines to work myself, not in Calcutta, but in a cotton district, where the kupas would come fresh to the machines, and where well-practised feeders could be obtainable. It must, however, be clearly understood that I do not consider that the presence of either myself or any other mechanical engineer will be requisite at the erection and starting of every set of my machines, for when the most desirable speed and arrangement has been ascertained from one set, all future sets which may be dispatched can be so constructed as to speed, gearing, &c., that any village smith or carpenter will be able to erect them.

10. At the trial, on the 5th of July last, Mr. Bell writes regarding a native churka to which he had added a third standard:

"It was manifest that this high working velocity cannot be maintained with the native churka fitted with a driving wheel, the vibration resulting from the extremely rapid revolutions of the rollers, considerably above 1,000 times a minute in the iron one, having so sensible an effect in one short trial as to render one doubtful if the churka would stand to the end of it. Cast-iron standards, however, would be little costly, and these and the substitution of brass, in which the iron endless screw should move, in the place of the wooden one on which it now works, would, by greater durability and less friction, afford a very effectual machine at a very trifling expense. The result of these trials appears to me to have completely established that the 'Mather' churka is not the improved form of that machine which it is desirable to follow, and that the common churka with a driving wheel far exceeds it in efficiency with the suggested improvements. I imagine the cost of a churka would not exceed 10 rupees."

about seven years ago, and was subsequently used by them at Hattrass.

In my reply to Extract 8, I have stated that this is not the only bullock machinery which was available, or the most suitable, at Agra for the trial, and I have further to state, that with the appliances already at Agra, any practical mechanical engineer could set the machines to work. As to the number of revolutions to be given to the rollers, I have always declined giving any positive opinion on the subject, this being one of those points on which I could only form a correct opinion after having set the machines to work myself, not in Calcutta, but in a cotton district, where the kupas would come fresh to the machines, and where well-practised feeders could be obtainable. It must, however, be clearly understood that I do not consider that the presence of either myself or any other mechanical engineer will be requisite at the erection and starting of every set of my machines, for when the most desirable speed and arrangement has been ascertained from one set, all future sets which may be dispatched can be so constructed as to speed, gearing, &c., that any village smith or carpenter will be able to erect them.

10. Captain Oldfield mentions in his report that this trial of the 5th of July lasted only one quarter of an hour, and from Mr. Bell's report, it seems that even this short time was almost too long for the native churka with a driving wheel attached, even though a third standard had been attached to it; he therefore recommends the introduction of brass and iron, instead of wood, in some parts of the machine; these substitutions, together with the driving wheel attached, render this no longer the native churka, but a new machine. The effect of the changes suggested by Mr. Bell will render the machine precisely similar to those I am now constructing for the Government, with the exception of the brush (which Mr. Bell leaves out, but which I still consider to be decidedly essential to the proper working of the machine), and the introduction of two multiplying wheels (between the driving wheel and the roller) to increase the speed of the latter. As to the use of brass for the screw on the wooden roller, I myself suggested this to Mr. Bell in a private letter, two or three months ago, mentioning that I was introducing it into the machines now constructing. Mr. Bell's estimate of ten rupees is perfectly erroneous; a machine such as he describes cannot be made in India under thirty-five rupees, and at this rate only in a Government workshop.

(signed) J. H. Mather, C. E.

(True extracts.)

(signed) J. H. Mather, C. E.

Iron Bridge Yard, Allipore,
17 September 1849.

Appendix (B.)

EXTRACT from a Letter from J. H. Mather, Esq., C. E., to H. Hamilton Bell, Esq., Agra, dated Calcutta, 30 March 1849.

No. 29.

I have already told you how anxious I was to have been allowed to set up the machine myself, and that I would on no account have undertaken the manufacture of machines for the North Western Provinces, had I not been assured that I should return to Agra at the public expense to erect them there. Mr. Simms, moreover, officially stated to the Government here, in December last, that he thought it was much to be regretted that I was not

I.
Bengal and
North Western
Provinces.

allowed to proceed to Agra with the machines; and I was subsequently told by Sir H. Maddock, the late Deputy-governor, that had he understood the matter rightly in the first instance, I should have accompanied the machines. I do not doubt for a moment your earnest desire to give the machines fair play, but there are certain adjustments which may very probably have to be made when this first set of machines is put to work, which none but a practised mechanic will probably observe till it is too late, and mischief has been done. I might mention, for your guidance, that it will be advisable to make two wooden frames to place under each line of machines, somewhat similar to the wooden frame supplied by Messrs. Jessop & Co. for the standard of the main shaft, each frame being made of timber not smaller than four inches by three inches and 17 feet in length. These frames, after being nailed or bolted to the floor, should be very accurately levelled on the upper side by means of a long straight edge and spirit level. The machines can then be bolted on to the frames, and the whole will be found to be level. I find that, with the machines which I am now making up here, these frames are of great service in working a number of machines, and that they are almost as essential as the bed plate to a steam engine. I may also mention, that I have some reason to believe that Jessop & Co.'s pulleys will be found too heavy for the work, and that it may be requisite for you to substitute for them lighter ones. There are, I believe, some lighter shafts of iron in the Custom-house at Agra which may be suited for this work. On to these shafts you might key solid wooden pulleys of one foot diameter, which any of your carpenters could easily make. I now send you a sketch of the building, on which I have marked the position in which these shafts and pulleys, if found requisite, might be placed. I also send a memorandum on the subject for your reference. In the machines now making here, I am introducing cast-iron brackets, for carrying a line of shafting behind the line of machines, these brackets being bolted on to the longitudinal wooden frames above alluded to, on which the machines are placed. This arrangement avoids the necessity of fixing brackets into the wall or beneath the floor, and insures the line of shafting being true with the driving pulleys of the machines, all being fixed on the same bed. You allude in your last letter to the bullock gear formerly used at Hattrass for the saw gins. I remember the different parts of the same well; but though it is complete and efficient machinery, you will probably find it too heavy for your present purpose, and it will require more bullocks to drive it than would be requisite with the simple wooden gearing which I propose for the purpose.

(True copy.)

(signed) J. H. Mather.

Appendix (C.)

No. 30. From C. Allen, Esq., in Charge of Cotton Experiments, North Western Provinces, to J. Thornton, Esq., Secretary to Government North Western Provinces; Agra, 13 September 1847.

Sir,

Revenue Department.

I HAVE the honour, in reply to your letter of the 29th of July, No. 387 A., to state, for the information of his Honour the Lieutenant-governor, that I requested Major Pillans, commissary of Ordnance, Captain Oldfield, executive engineer, and Captain Weller, of the Engineers, to unite with Mr. Hamilton Bell and myself in superintending experiments for testing the instruments for cleaning cotton brought up by Mr. Mather.

2. All these gentlemen most readily assented, and, with the exception of Mr. Bell, prevented by other business, we met at noon on the 25th of August, Mr. Mather having informed us that he would be ready to show the machine on that day.

3. The proceedings were opened by reading the 7th para. of your letter, directing me to call a committee, and Mr. Mather presented a Memo. (Enclosure, No. 1), which we directed should be appended to the proceedings.

4. Mr. Mather also laid upon the table a plan for working 12 gins by one power, and explained the mode he proposed to work 12 of the machines described in his Memo. No. 1.

5. After examining the plan, the committee proceeded to inspect the machine.

At 22 minutes to one, P.M. the machine was set in motion to clean 72 rupees' weight of seed cotton, which was cleaned at two minutes past one. The cotton wool weighed 30 rupees, and the seed 42 rupees; total, 72 rupees.

At 16 minutes before one, P.M., a native churka was set to work with the same weight of seed cotton (72 rupees); the wool separated from its seed by 29 minutes past one, and weighed 30 rupees, while the seed weighed 46 rupees; total, 76 rupees. The four rupees gain in weight was obtained partly by some of the seed getting mixed with dirt, and partly, possibly, by overweight having been given at first.

6. The machine thus cleaned the cotton at the rate of 15-16ths of a seer of clean cotton in an hour, while the native churka cleaned at the rate of 8-16ths of a seer in an hour.

7. The

7. The wool turned out by the machine was not so free from seed as that turned out by the native churka. Several trials were made with similar results, and, in consequence of hints thrown out for alterations in the machine, the committee adjourned, to allow Mr. Mather to make some specified changes, and any others that might suggest themselves to him.

8. The same committee, with the addition of Mr. Bell, met again at noon on the 2d of September, Mr. Mather giving in a second Memo. (Enclosure No. 2.)

9. The committee determined specially to try the alteration mentioned in the 4th para. of Mr. Mather's second Memo., namely, the reduction of the size of the wooden roller to $1\frac{1}{2}$ inch diameter; in other words, to the average size of the wooden roller in ordinary native churkas, considering that this alteration was the one most in accordance with their ideas of what was required.

10. At five minutes to one the machine was set in motion, and in eight minutes (that is, by 11 minutes to one) a pound of seed cotton was cleaned. At five minutes to one a native churka was set in motion with the same weight, or 1 lb. of kupas, which was cleaned by 10 minutes past one. The quantities given, namely, $9\frac{1}{2}$ oz. of seed and $6\frac{1}{2}$ of cotton wool, were very nearly equal in both cases.

11. In these trials the wool was equally well separated from the seed by both machines, and the alteration of decreasing the size of the wooden roller was found to answer perfectly.

12. The trials thus gave a rate of $7\frac{1}{2}$ lbs. or $3\frac{1}{2}$ seers of seed cotton in the hour to the machine, and 4 lbs. or 2 seers of kupas to the churka. Divide the weight of seed cotton by three, the usual proportion of wool in each case, and we have $1\frac{1}{2}$ seer in an hour for the machine, against two-thirds of a seer for the churka, or a very small fraction more than half.

13. The weight of seed cotton has been taken as showing more nearly the probable power of the instruments, for the produce of clean cotton wool was larger than ordinary, on account of the "kupas" having been picked, and being particularly good.

14. The committee adjourned at 10 minutes past three, to allow Mr. Mather to make arrangements for calculating the power necessary to work each of the instruments, and for other improvements.

15. The committee, with the exception of Mr. Bell (unavoidably absent), met again on the 9th instant, and Mr. Mather exhibited the machine (as altered at the second meeting), with a "brush" attached in the manner described in the 7th para. of Mr. Mather's Memo. No. 1.

16. The brush whirled away the wool, and took it off the rollers as perfectly as it does from the saws in the American "saw-gin." This second alteration, or rather addition, answered perfectly, and it may be fairly expected that dust, leaves, and other foreign matter will thus be separated from the wool.

17. An attempt was now made to calculate the power necessary to work one machine at the desired velocity. Accurate results were not obtained (as has been more particularly described by the engineer officers on the committee); but I think it may fairly be calculated that 32 lbs. would suffice to work at the desired velocity one machine, including the friction of the three-foot diameter wheel by which it was set in motion.

18. Major Pillans, Captain Oldfield, Captain Weller, and Mr. Bell, have each made most valuable remarks on the experiments (they form Enclosures Nos. 3 to 6), and I have little to add.

19. All the members recommend that Mr. Mather be allowed to proceed to Calcutta to make up 12 machines and the "thrasher," as they consider the invention well worth a trial, in the way and to the extent recommended by Mr. Mather.

20. Mr. Mather having been made acquainted with Captain Oldfield's recommendation that he should work in connexion with Colonel Forbes at the Government foundry, has requested me to state that he would prefer this arrangement to working independently, and has begged me to press the suggestion on the notice of his Honour.

21. I should, in conclusion, state that Mr. Mather has evinced great anxiety to exhibit the machine in all its details, and in the fullest manner. He has carried out with great zeal and energy the improvements thought of by himself, and those recommended by others.

I have, &c.

(signed) C. Allen,

In charge of the Cotton Experiments, North Western Provinces.

(True copy.)

(signed) J. H. Mather.

I.
Bengal and
North Western
Provinces.

Appendix (D.)

(No. 342 of 1847-48.)

No. 31.

From Major *G. T. Greene*, Officiating Mint Master, to *J. H. Mather*, Esq., Civil Engineer,
Fort Gloster Mills.

Dear Sir,

In reply to your letter of the 13th instant, I have to authorise you to construct the 12 cotton-cleaning machines at the Fort Gloster Mills, at the outside cost of 120 Company's rupees each; but as the executive engineer at Agra has calculated their cost to be 60 rupees each, I hope you will be able to effect a very great reduction in the cost of so large a number of articles of the same description, and moreover offer some reason for the great excess in your estimate beyond Captain Oldfield's.

Not having seen any of the machines, I am unwilling to give any opinion on the rates; but I shall be glad to see you, and concert with you as to some means of inspecting the machines, either at the manufactory or here.

I am, &c.
(signed) *G. T. Greene*,
Officiating Mint Master.

Calcutta Mint, 18 Dec. 1847.

(True copy.)

(signed) *J. H. Mather*.

Appendix (E.)

No. 32.

EXTRACT from a Letter from *C. Allen*, Esq., Officiating Secretary to Government in the North Western Provinces, to *G. A. Bushby*, Esq., Secretary to the Government of India, Home Department; dated Agra, 13 July 1848.

Para. 5. Mr. Mather's proceedings in Calcutta were supervised by yourself, and also by Mr. Simms, as well as by Major Greene. On the official recommendation of the last-mentioned officer the construction at Fort Gloster of 12 machines at 120 rupees each was sanctioned, being in all 1,440 rupees. It was expected they would be ready early in the year, so as to be in time to be of service in the manufacture of last year's cotton."

(True copy.)
(signed) *J. H. Mather*.

Appendix (F.)

No. 33.

MEMORANDUM Explanatory of the New Cleaning Machine for Cotton, and of the Alterations, &c., proposed to be made in the same, together with a Description of a Cotton "Thrasher."

1. THE new cleaning machine, as it at present stands, is simply a new mechanical arrangement for applying power to the common native "churka" already in use in all parts of India.

2. The machine consists of two rollers, one foot each in length, between which the cotton is passed to free it from the seed.

The upper roller is of "steel;" its diameter in the centre is $\frac{3}{8}$ ths of an inch, and it tapers slightly towards each end, the diameter of its extremities being half an inch and $\frac{1}{16}$ th. The lower roller is of hard wood of $2\frac{3}{8}$ ths inches in diameter throughout.

3. By means of a pinion and a spur wheel the power is so applied to the machine that the upper roller performs $4\frac{1}{2}$ revolutions while the lower roller performs one.

4. The machine, as now exhibited, is worked by manual power applied to a "winch handle" to a "fly-wheel of three feet diameter, round the outside of which a leather strap is passed, connecting it with a pair of fast and loose pullies of $6\frac{1}{2}$ inches diameter, which are keyed on to the same shaft as the pinion wheel above alluded to. This arrangement of working by manual power is, however, only temporary, and is made only in order to test the effect of the machine on the cotton; it is proposed eventually to bring together several of the machines (at least 12), and by means of a common shaft to drive them by the same power, either bullocks or steam;" and it is the decidedly expressed opinion of the inventor and manufacturer that it cannot be subjected to a fair trial, or that a correct estimate of its performance can be made out unless "at least 12 machines are worked together, and by some power other than hand."

5. The arrangement of the fast and loose pullies above named will be found of great use in working the machine, as, in case of any stoppage being necessary (such as will often be

be the case, in order to clear away the seeds which may stick between the rollers), the man employed in feeding can, by means of a wrought-iron guide, the handle of which is always within his reach, transfer the strap from the fast to the loose pulley, thereby causing the instant stoppage of the machine. This will be found peculiarly advantageous when more than one machine are worked together, as the stoppage of one will in no way whatever interfere with the movements of the remainder.

6. The simplicity of the machine is such, and its resemblance to the common churka, to which the natives are accustomed, is so great, that there would probably be no difficulty in introducing it into general use, if such a course was considered desirable; there are, however, several alterations, &c., which may be applied with advantage to the machine as it now stands; three of the most striking are now named, but others no doubt may hereafter suggest themselves.

7. It is proposed to add to the machine a brush "wheel," similar to that of the "American saw-gin," for the purpose of clearing the cotton, as soon as it has passed through the rollers, of all dirt, pieces of leaf, &c. &c. This, which would be keyed on to the same shaft, on which the pinion wheel and three tullies are now fixed, and the length of its arms would be such as to allow the brushes while revolving to touch the wooden roller. The top and sides of the framework of the machine would be closed in with wood, and the cotton would be discharged in the same manner as from the saw-gin.

8. It is proposed to decrease the size of the wooden roller, giving it a diameter of only $1\frac{1}{2}$ inch; the object of this alteration being to prevent as much as possible small seeds from finding their way between the rollers, and being discharged in a broken state with the cotton. The size of the rollers is quite different in the native churkas in different parts of India; those now in the new machine are similar to the rollers used in the Guzerat district and other parts of the Bombay Presidency. In the Madras churkas both rollers are of wood, and both of the same diameter, viz., about $3\frac{1}{2}$ inch. In the North Western Provinces, again, the wooden rollers somewhat resemble those of Guzerat, but are of smaller diameter. This difference of size, &c., is no doubt owing to the difference in the size of the seed in the respective districts; and it therefore now appears desirable to lessen the wooden roller, bringing it thereby more nearly to resemble the native churka, as used in these provinces. A slight alteration is also proposed to be made in the bearings of the pinion wheel shaft, the necessity for which will easily be seen on an inspection of the machines.

9. The "thrasher" is intended to be used for the purpose of clearing cotton (after it has been separated from its seed) of all dirt, dust, pieces of leaf, &c., &c.

10. This machine will be found very useful for preparing for the English market cotton purchased from the native dealers which has previously been separated from its seed in the common native churka, as such cotton is often unfit (in the state in which it is purchased) for the English market, not from any deficiency in the length and quality of its staple, but on account of the dirt, pieces of leaf, stray seeds, broken seeds, &c. which it contains. The cotton has hitherto been partly cleared of this most objectionable trash, by beating it with sticks on rattan frames; but the only method as yet used for completely clearing it has been the very laborious process of hand-picking. It is therefore most desirable to introduce machinery for effecting this purpose.

11. In America the "thrasher" has only lately been known, and it is not in general use for this purpose, the cotton being mostly separated from its seed by the "saw-gin," the "brush wheel" of which machine performs the operation of clearing the cotton of the trash.

12. If the above proposed addition of a "brush wheel" (similar to that of the "American saw-gin") be made to the new cleaning machine, as pointed out in the explanation of that machine, the whole process of separating the cotton from its seed and of clearing it from trash, will be performed by one operation, and for cotton so cleaned the thrasher will not be required.

13. A rough model of the thrasher is now exhibited, which, though in an unfinished state, will give a better idea of the machine than a written description of its formation can convey.

(signed) J. H. Mather,
Civil Engineer.

Agra, 25 August 1847.

(True copy.)

(signed) J. H. Mather.

I.
Bengal and
North Western
Provinces.

EXTRACT from a Despatch from the Government of India, to the Honourable the Court of Directors in the Home Department; dated 21 December (No. 47 of 1850).

Completion of Mr. Mather's cotton-cleaning machines, and their distribution. Cost of the machines in excess of the estimated amount. Mr. Mather's departure from the country, leaving unpaid the wages of his establishment.

Home Cons. 8th February 1850, Nos. 18 to 33; 10th May 1850, Nos. 21 to 23; 23d May 1850, Nos. 12 to 32; 31st May 1850, Nos. 5 to 7; 7th June 1850, No. 19; 14th June 1850, Nos. 10 to 13.

28. IN connexion with our despatches noted in the margin,* the papers forming this collection will inform your Honourable Court of the completion of the 96 cotton-cleaning machines, which Mr. Mather had been engaged to construct. They have been distributed as follows:

To the Government of Bengal	-	-	-	-	-	18
Ditto - ditto - Madras	-	-	-	-	-	2
Ditto - ditto - Bombay	-	-	-	-	-	10
Agricultural and Horticultural Society of Calcutta	-	-	-	-	-	1
						31
In store	-	-	-	-	-	65
TOTAL	-	-	-	-	-	96

29. Notwithstanding the repeated declarations of Mr. Mather, the cost of these machines has, it will be seen, been very considerably in excess of the estimate of 60 rupees each.

EXTRACT from the Proceedings of the Honourable the President of the Council of India, in Council, in the Home Department, under date 8 February 1850.

No. 18. From *J. H. Mather*, Esq., Civil Engineer, superintending Government Cotton Experiments, to *William Grey*, Esq., Under Secretary to the Government of India, Home Department.

Sir,

I HAVE the honour to lay before you the following report regarding the progress of the cotton-cleaning machine work, and to request the instructions of Government thereon.

2. On commencing the manufacture of cotton-cleaning machines, I found the turning lathes and workshops (which had not been used for several months) in such bad repair and disorder, that I addressed Mr. Simms on the subject; and on his representation to Government, orders were issued to the Military Board, on the 25th November last, to allow me to indent on the superintendent of the Cossipore Gun Foundry for such turning-lathes and other appliances as I required. By this means, and by carefully repairing the tools of the yard, I have been enabled, though with some delay (on account of the superintendent of the foundry being unable at once to meet my requisitions) to bring the workshop into efficient working order, and the manufacture of the whole 96 machines is now proceeding simultaneously, as well as the construction of the cattle mills, &c., sanctioned by your letter of the 24th March last. The work has not, however, of late proceeded quite so quickly as I could have desired, and in order to ensure its more speedy completion, and to avoid the risk of its exceeding the estimated amount of 60 rupees for each machine, I now find myself obliged to solicit the attention of Government to the following statement.

3. On my first receiving instructions to carry on my work, and to take up my residence in the Iron Bridge Yard, the manufacture of bridges had been abandoned for upwards of 12 months, the foreman of the yard had been removed to the Mint, and the superintendent of the bridge department (Lieutenant Douglas) had just received a superior appointment at Ajmere.

4. I was informed by Lieutenant Douglas, previous to his departure, that the only Government work which, for several months, had been carried on in the yard, had been the making of a few iron wheels for the Ganges Canal, and the repairing of sluice gates for the fort, but that the free use of the yard had been allowed to the late foreman for carrying on a private business of his own. I then represented to Mr. Bushby (then Secretary to the Government of India), that, as I anticipated difficulties with workmen if there was a division of authority in the yard, I was prepared to undertake the charge of any occasional work that the Military Board might send to the yard during the time occupied in the manufacture of

* No. 56 of 1848, dated 21st October; No. 23 of 1849, dated 28th July, pp. 15 and 16; No. 28 of 1849, dated 10th October, pp. 18 to 20.

of the cotton-cleaning machines. Mr. Bushby assured me that he would take steps to have the whole of such work placed under my charge till a new superintendent should be appointed by Government, or the manufacture of bridges be resumed. I am not aware what official steps Mr. Bushby took in the matter, as he shortly afterwards left Calcutta, but I know that he wrote privately on the subject to Colonel Garstin, as a member of the Military Board, as well as to Captain Fraser, garrison engineer, who is temporarily in charge of the yard. Colonel Garstin afterwards informed me that, as there was no work whatever just then in hand in the yard, there was no occasion for any further arrangement.

5. Within the last three months, however, sundry work in experimental roofing has been carried on in the yard by orders, I believe, of the Military Board, and the workmen have been placed under the charge of the former foreman of the yard, who is now employed in the Mint, and is consequently only present here occasionally, and then not till after four o'clock in the afternoon. Two independent authorities in a workshop, as well as elsewhere, never work well; and in the present instance the disadvantages are greatly increased by the fact of a body of native workmen being left for seven or eight hours daily without any control.

6. The above arrangements have caused much delay and inconvenience to me in the prosecution of my work; the workmen above alluded to come in and go out whenever they choose; while in the yard they are constantly smoking and idling their time. I often find them seated at a distance from their own work in the workshops where my work is going on, talking to my workmen, and causing them also to leave their work; I have endeavoured in vain by speaking to them to keep them away. I uniformly receive abusive replies, and am told that they are not my servants. On leaving the yard in the evening, they refuse to allow my durwans to search their clothes, as is the custom in all public and private workshops in Calcutta; and to this latter cause I am inclined to attribute several petty thefts of brasswork which have lately taken place from the cotton machines.

7. My workmen, who were formerly quite contented, have of late constantly troubled me with complaints that the same license is not allowed to them as to coming in and going out, &c., and I have had the greatest difficulty in keeping them to their work. I should not, however, have troubled Government with a reference on this matter, had I not ascertained that the Military Board have ordered a considerable quantity of wheels, &c., for the Ganges Canal, to be made up in the yard, and as this work, if conducted under similar supervision, will tend greatly to increase the disadvantages to my work, as above enumerated, and as, under such circumstances, it will probably be out of my power to complete my work within the estimated amount, I would respectfully suggest that arrangements might be made to place the charge of such work in my hands as long as I may continue in the yard, which would not only enable me to complete the cotton machines rapidly, and for a less sum than the estimated amount, but, from the fact that I reside on the premises, and am here all day, would also insure a more effective supervision of the work alluded to than any party, however talented, can give whose other engagements prevent his attendance here during the working hours.

8. Colonel Sage, the superintending engineer of division, through whom the order for admitting me in the first instance into the yard, was transmitted by the Military Board, lately visited the yard officially, and noticed the difficulties above alluded to, with which I have to contend, and has since assured me that he is prepared to substantiate my statements on the subject.

9. With regard to my qualifications for taking charge of the construction of ironwork, I would refer to the 14th para. of Mr. Simms' report to Government on that subject, dated Calcutta, 7th August 1848, addressed to Mr. Bushby, Secretary to the Government of India.

10. In conclusion, to avoid the chance of any misapprehension on the subject, I would distinctly state that I seek no addition to my present salary, and that my sole reason for making this application is that I may be enabled to complete the new cotton-cleaning machines within the estimated amount, in a manner satisfactory to Government and creditable to myself.

Iron Bridge Yard, Allipore,
2 June 1849.

I have, &c.
(signed) J. H. Mather, C.E.
Superintending Government Cotton Experiments.

(No. 356.)

From W. Grey, Esq., Under Secretary to the Government of India, to the Military Board.

No. 19.

Gentlemen,

I AM directed, with advertence to Mr. Secretary Halliday's letter, No. 1056, dated the 25th November last, to which no reply has been received, to forward in original the accompanying communication submitted to the Government by Mr. Mather, and to request that

296—Sess. 2.

3 G

your

Home Department.

I.
Bengal and
North Western
Provinces.

your Board will have the goodness to report, for the information of the President in Council, whether the arrangement suggested by Mr. Mather can be carried into effect without inconvenience or detriment to the public service.

Council Chamber, 8 June 1849.

I have, &c.
(signed) *W. Grey*,
Under Secretary to the Govt. of India.

The return of the enclosure is requested with your reply.

(No. 2728.)

No. 20.

From the Military Board to Major-General the Honourable Sir *J. H. Littler*, G.C.B., President of the Council of India in Council, Home Department; dated Fort William, 20 July 1849.

Honourable Sir,

WITH advertence to the General Order by the Governor-general, General Department, Simla, dated 25th October 1842, we have the honour to annex copy of our Secretary's letter, No. 2729, dated this day, and to state that there was a difference of opinion in our Board with reference to the 2d para., which is in reply to the 2d para. of Superintending Engineer, South Eastern Provinces, letter No. 452 of the 5th June 1849, an extract of which is annexed.

2. The majority of our Board in this question is formed by Lieutenant-colonel Garstin and Lieutenant-colonel Hawkins, and the minority, Lieutenant-colonel Mactier, suggested that the following should be written in substitution of the 2d paragraph:

"With reference to your 2d para., and the inconvenience already experienced in the Iron Bridge Yard from different parties being allowed to work there together under different superintendence, as described in the 3d para. of the civil architect's letter to your address, No. 16, of the 14th ultimo, I am directed to request you will inform Captain Fraser that Mr. Harvey and his workpeople must not be employed in the yard during the time Mr. Mather may be employed there by the orders of Government."

The letter as originally written was despatched under the orders of the majority.

We have, &c.
(signed) *F. S. Hawkins*, Lieut.-Col.
E. Garstin, Lieut.-Col., Com.
W. Mactier, Lieut.-Col.

(No. 2729.)

From Captain *E. W. S. Scott*, Secretary to the Military Board, to the Superintending Engineer, South Eastern Provinces.

Sir,

I HAVE the honour to acknowledge the receipt of your letter, No. 452 of the 5th June 1849, and, with reference to the subject of your communication, I am directed by the Military Board to express their regret that Captain Fraser did not report to you his having permitted the officiating chief engineer to occupy a vacant space in the iron-yard for the purpose of making experiments with iron for roofing.

2. With reference to your 2d para., I am directed to remark, that the responsible situation that Mr. Harvey holds at the Mint is a sufficient guarantee for his conduct and character; and the Military Board can see no objection to the civil architect's availing himself of Mr. Harvey's professional knowledge of practical mechanics.

Fort William, Military Board Office,
20 July 1849.

I have, &c.
(signed) *E. W. S. Scott*,
Secretary.

EXTRACT of a Letter, No. 452, dated 5th June 1849, from the Superintending Engineer, South Eastern Provinces.

Para. 2. THE practice of permitting Mr. Harvey to work at the yard, since his removal from that establishment, is also very objectionable, in my opinion; and as his workpeople, I am informed, invariably interfere with those employed by Mr. Mather, I beg that the Board will in future interdict Mr. Harvey's presence in the yard, and that of his workpeople, without their special sanction, to be communicated through this office to the officer in charge of the Iron Bridge Yard.

(True copy and extract.)

(signed) *E. W. S. Scott*, Captain,
Secretary.

(No. 2248.)

From the Military Board to Major-General the Honourable Sir *J. H. Littler*, G.C.B., President of the Council of India in Council, Home Department; dated Fort William, 27 July 1849.

I.
Bengal and
North Western
Provinces.
—
No. 21.

Honourable Sir,

WE have the honour to acknowledge the receipt of Under Secretary, Government of India, Mr. Grey's letter, No. 356, of the 8th June 1849, forwarding in original a communication from Mr. Mather, and requesting our Board to report, for the information of your Honor in Council, whether Mr. Mather could be placed in charge of the Iron Bridge Yard, at Allipore, without inconvenience or detriment to the public service.

Dept. P. W.

2. In the last para. of Mr. Officiating Secretary Halliday's letter, No. 1056, of the 25th November, we were requested to report on the same subject, which was then mooted at the recommendation of Mr. Simms.

3. In the concluding para. of letter No. 6614, dated 1st December 1848, our Board reported that there was no objection to the occupation of the dwelling-house in the iron-yard by Mr. Mather whilst the premises were vacant, and as a temporary measure; and that a report on the Iron Bridge Yard would shortly be forwarded, embracing the questions of the advantages of retaining the yard, and appointing a superintendent to it.

4. This report was submitted to your Honor in Council through the Military Department, in our despatch, No. 380, dated 11th May 1849, and entered fully into the question of the retention and abolition of the yard.

5. The majority of our Board recommended that the Iron Bridge establishment should be kept up on a proper footing, and the minority recommended that it should be abolished as a separate concern, and that it should be added to the Cossipore Foundry.

6. In a letter, dated 16th November 1848, Mr. Mather offered his services to our Board, during the time he might be occupied in making up the cotton machines, as an assistant to the civil architect in charge of the Iron Bridge Yard, on a salary of (200) two hundred rupees per mensem, in addition to the (400) four hundred rupees allowed to him by Government.

7. In reply, we asked Mr. Mather whether he was competent, from the simple data of length of span and width of roadway, to calculate and supply working drawings, in detail, of the several parts of an iron suspension bridge.

8. Mr. Mather, in answer, informed our Board that he did consider himself competent to make all necessary calculations, &c., but that he did not intend the extra salary he had named in his offer (200) two hundred rupees, to cover the responsibilities and labour that such calculations would require, and that he could not undertake them without devoting his whole time to the Iron Bridge work, which he could not do under his present engagement, and that the remuneration should be proportionate to the responsibility incurred; here the correspondence ceased. Copies of the letters, as detailed in the margin,* are annexed.

9. Our Board are not aware of the precise terms under which Mr. Mather has been employed to make up cotton machines for Government, or whether it was stipulated by Mr. Mather that he should have the free and sole use of the yard at Allipore.

10. The 5th para. of his report has reference to some experiments in iron roofing carrying on under the instructions of our colleague, Lieutenant-colonel Garstin, in his capacity of officiating chief engineer.

11. A small space in the yard is occupied, with permission of the civil architect, for the purpose of these experiments, and the officiating chief engineer has availed himself of the practical skill of Mr. Harvey during the hours he is not employed in the Mint.

12. An order for the manufacture of 100 pairs of wheels for the Ganges Canal works has been issued to the civil architect, and it is with reference to this work, and the supposed inconvenience its execution under the civil architect's orders and management might occasion him, that Mr. Mather has submitted his remonstrance.

13. The majority of our Board cannot conceive the necessity for a clashing of interests in so large a yard under one superintendent. Mr. Mather should understand that Captain Fraser is the head of the iron yard, and they respectfully suggest that Mr. Mather should be informed that every facility, short of clearing the yard of all other work, has already been afforded to him, and that he must not place himself in opposition to Captain Fraser, or interfere with any work which may be carried on in the yard under the orders of its superintendent.

14. The

* Letter, dated 16th November 1848, from Mr. Mather; Board's letter, No. 6357, dated 21st November 1848 to ditto; Mr. Mather's reply, dated 28th November 1848.

I.

Bengal and
North Western
Provinces.

14. The majority of our Board are convinced that Captain Fraser will not interfere in any way with Mr. Mather, or with his work, and the yard is sufficiently extensive to admit of a much greater quantity of work than that at present contemplated, being carried on simultaneously, and without confusion.

15. With reference to the para. of the civil architect's letter quoted by our colleague Colonel Mactier in the 21st para., the majority of our Board would respectfully observe, that it seems to point out how obnoxious the conduct of Mr. Mather has been towards the civil architect since he has been permitted to work in the yard. Our Board have requested further explanation of this letter from Captain Fraser in a letter this day addressed to the superintending engineer, South Eastern Provinces, a copy of which is annexed.

16. Unwilling to delay the submission of the present report, we have not held it back until the reply is received, a copy of which will be submitted to your Honor.

17. The majority of our Board are of opinion that it would be inexpedient at the present time, when the question of the retention of the yard is under consideration, to make any alteration or new arrangements in its superintendence.

18. The majority also feel confident that, if the civil architect is permitted to make up the iron work now urgently required for the canals, the rates and outturn will afford additional proof that the Iron Yard should be kept up as a Government establishment.

19. Our colleague Colonel Mactier, who has recommended that the Allipore Yard should be done away with as a separate concern, believes it would be for the interests of Government, as Mr. Mather has already been placed in the Iron Bridge Yard, that the arrangement suggested by him in his letter dated the 2d ultimo, to the Under Secretary to the Government of India in the Home Department, should be carried into effect.

20. Colonel Mactier considers that nothing can be less desirable than that a second party should be permitted to carry on works of any kind in the yard at the same time with Mr. Mather.

21. Lieut.-colonel Mactier's views as to the inexpediency of employing two distinct parties under separate superintendence to conduct works in the yard at the same time, are, your Honor in Council will observe, borne out by the experience of the civil architect, who in the 3d para. of his letter, No. 16 of the 14th ultimo, to the address of the superintending engineer, South Eastern Provinces, says, "I, and I rather suspect Mr. Mather also, have for some time been aware how impossible it is for conflicting interests to work in the yard, and I may add that the trouble and annoyance I have been exposed to in consequence, though not patent to you or the Board, have been very considerable; as the simplest means therefore of solving the difficulty, I would suggest the transfer of this establishment to Mr. Mather, for he could then carry on his own and any work the Government might require, as a Government servant, on the understanding of his handing over any unfinished Government work to his successor, should one be appointed, and the yard be kept up, and in the event of its abolition he might be allowed moderate time to finish any works in progress; for under existing circumstances, I should really be glad to get rid of my charge, and it will I think be obvious to you, that the mixture of different working parties ought to prove quite as disagreeable to me as to Mr. Mather."

22. Captain Fraser's proposal, which has been recommended to the Board by the superintending engineer of the South Eastern Provinces, appears judicious, and to have been well considered, and as Lieut.-colonel Sage reports that Mr. Mather is prepared, in the event of the establishment being made over to him, as suggested by the civil architect, to give security for the property in store, Lieut.-colonel Mactier begs leave respectfully to recommend the measure to the favourable consideration of your Honour in Council.

23. Employing Mr. Harvey at all in the yard, who, it appears from Captain Fraser's letter above noticed, although a permanent servant of Government, was a competitor with Mr. Mather for a contract for the work alluded to in the 11th para. of this letter, appears to Lieut.-colonel Mactier very injudicious, for it could hardly have been expected that these rivals would work in harmony in the same shop, the result is described in the para. of Captain Fraser's letter quoted above, and in the same letter it is noticed that Mr. Harvey's workpeople refused to be searched, a practice which Lieut.-colonel Mactier believes should be adhered to in all such establishments.

24. The original enclosure is herewith returned.

We have, &c.
(signed) *F. S. Hawkins*, Lieut.-Col.
E. Garstin, Lieut.-Col., Com.
W. Mactier, Lieut.-Col.

From *J. H. Mather*, Esq., Civil Engineer, Superintending Government Cotton Experiments,
to Colonel *Garstin*, Chief Engineer, Fort William.

Sir,

IN accordance with your request, and in reference to the communication which I yesterday handed to you from Mr. Bushby, I have now the honour to state that I have received orders from the Supreme Government to manufacture a considerable number of cotton-cleaning machines

machines at the Iron Bridge Yard at Allipore, and to reside in the yard during their construction. I have undertaken this employment at a monthly salary of 400 rupees, with the understanding that I am at liberty to undertake any additional work that I may be able to meet with, provided that it in no way interferes with the construction of the cotton-cleaning machines.

2. After inspecting the yard, I find that, without the slightest hindrance to the work above alluded to, I should be able to carry on work to a considerable extent in the yard, and I am therefore desirous to offer my services to the Military Board as resident engineer at the yard, or assistant to the superintendent of bridges, at a salary of 200 rupees per month, and on these terms I am prepared to superintend all the current duties of the yard in the repairs and construction of bridge work, and the construction of wrought and cast-iron work of all descriptions, and to make my services generally useful in the department of the civil architect and superintendent of bridges.

3. The construction of cotton machines will probably occupy me for at least 12 months, and during that period I am prepared to bind myself to remain in the yard on the above-named terms, which, together with my allowance from the Supreme Government, would form a consolidated salary of 600 rupees per month; I am further prepared to undertake to remain in the yard after the expiration of 12 months, with the understanding that the arrangement may at any time be terminated by a three (3) months notice from either party. Should the Military Board, however, be prepared to offer me a competent salary independent of my allowance from the Supreme Government above alluded to, I am willing to engage my services to them for a period of three to five years.

4. I have of late been in private communication with Captain Fraser, garrison engineer, civil architect, and superintendent of bridges, and I believe I may state that the above proposed arrangements, so far as I am personally concerned, would quite meet his views for the short period during which he may be in charge, for I am led to understand that no circumstances will induce him to officiate after the operations of the yard become more extensive.

5. With regard to my qualifications for the office, I have to state that I was educated as a mechanical engineer in the extensive engineering works of Messrs. Mather, Dixon & Co., of Liverpool, of which house my father was the senior partner, and that I was subsequently engaged in charge of the locomotive department of two of the principal lines of railway in England. Since arriving in India, I have erected a considerable quantity of machinery, &c., in the Madras Presidency, and have for the last 18 months been engaged in the service of the Government North West Provinces making up cotton machinery. My work has from time to time been reported on to Government by Mr. F. W. Simms, C. E., consulting engineer to the Government of India, to whom I am enabled to refer you as to my general qualifications, &c. I can also refer to Captain Horsley, of the Madras Engineers, as to the works executed by me in that Presidency, as well as to Mr. Bushby, Secretary to the Government of India, who has already communicated with both Captain Fraser and yourself on this subject.

I have, &c.

(signed) *J. H. Mather, C. E.*

Hastings-street, Calcutta,
16 November 1848.

Superintending Government Cotton Experiments.

(No. 6357.)

From Captain *E. W. S. Scott*, Assistant Secretary, Military Board, to Mr. *Mather*.

Sir,

I AM directed by the Military Board with reference to your proffer of services as resident engineer, or assistant to the superintendent at the Iron Yard (contained in your letter to Lieut.-colonel Garstin, chief engineer, Fort William, dated the 16th current), to inquire whether you consider yourself competent, on the simple data of the required span and width of roadway for an iron suspension bridge, to calculate the proportions of the several parts, and to furnish correct working plans of the same, for the guidance of the yard.

I have, &c.

(signed) *E. W. S. Scott,*
Secretary.

Military Board Office,
21 November 1848.

I.
Bengal and
North Western
Provinces.

From *J. H. Mather*, Esq., Civil Engineer, Superintending Government Cotton Experiments,
to Captain *E. W. S. Scott*, Assistant Secretary to the Military Board.

Sir,

I HAVE the honour to acknowledge the receipt of your letter of the 21st instant (which was only delivered to me yesterday), in which you inquire whether I consider myself competent to calculate the proportions of the several parts of suspension bridges, when furnished with data as to the required span and breadth of roadway.

2. In reply to the above, I have to state, for the information of the Board, that I consider myself perfectly competent to undertake the above-named work; but at the same time I desire that it may be understood, that when I tendered my services to the Board, I simply offered to undertake the superintendence of the execution of the work in the yard, on the supposition that all designs for new bridge work would be furnished from other quarters. The important responsibility attached to the duties alluded to in your letter under acknowledgment is such, that the party undertaking the same ought to be in a position to devote his whole time thereto, and the remuneration should be proportionate to the responsibility incurred.

3. I have already explained (in my letter to Lieutenant-colonel Garstin, to which you refer), that at present my time and attention are partly occupied by other work for the Government of India, and I am, therefore, for the present, under the necessity of confining myself to the terms of engagement which I have already proposed, viz., the simple superintendence of the execution of the work in the yard. If the Board, however, are hereafter desirous to engage my entire services at a fair rate of remuneration, I shall be prepared to undertake the duties alluded to in your letter, in addition to the superintendence of the work in the yard.

1, Hastings-street, Calcutta,
28 November 1848.

I have, &c.
(signed) *J. H. Mather*, Civil Engineer,
Superintending Govt. Cotton Experiments.

(No. 2848½.)

From Captain *E. W. S. Scott*, Secretary to the Military Board, to the Superintending Engineer, South Eastern Provinces.

Sir,

WITH reference to the 3d para. of Captain Fraser's letter, No. 16, of the 14th ultimo, the Military Board request that you will call upon the civil architect to explain fully to what he alludes in stating that he and Mr. Mather were both aware how impossible it is for conflicting interests to work in the yard; and that the trouble and annoyance he (Captain Fraser) has been exposed to in consequence, though not patent to the superintending engineer and to the Board, have been very considerable.

2. The Military Board do not perceive how Mr. Mather's being permitted to perform his work in the yard should have produced conflicting interests, Captain Fraser being in charge of the yard, and its superintendent. On this point, information is required.

3. They also wish to be informed precisely of the trouble and annoyance to which the civil architect has been exposed since Mr. Mather has been permitted to work within the yard.

4. With reference to Mr. Mather's complaint, that the workpeople in the yard refused to be searched before quitting the premises, the Military Board wish that it should be explicitly stated whether they were searched under the standing orders of the yard, by the head man employed by the civil architect.

5. An early reply to this letter is requested.

Military Board Office,
27 July 1849.

I have, &c.
(signed) *E. W. S. Scott*,
Secretary.

(True copies.)
(signed) *E. W. S. Scott*, Captain,
Secretary.

(No. 484.)

No. 22. From *F. J. Halliday*, Esq., Secretary to the Government of India, to the Military Board.

Gentlemen,

Home Department. I AM directed to acknowledge the receipt of your letters noted in the margin,* reporting on the question of vesting Mr. Mather temporarily with the superintendence of the Iron Bridge Yard.

* No. 2728, dated 20 July; No. 2848, dated 27 July.

2. In reply, I am desired to state that it appears to the President in Council, that if it can be done without great inconvenience or hindrance to public business, it would be desirable while Mr. Mather's contract lasts (which will not be much longer), to leave him to work entirely

entirely undisturbed in the yard, no other parties being sent there. The experiments in iron roofing may, the President in Council considers, well be postponed till Mr. Mather has finished his cotton-cleaning machines, which it is expected he will soon do; and his Honor in Council would wish also that your Board should consult with Captains Fraser and Broome as to whether the casting of the wheels for the Ganges Canal might not be entrusted to the superintendent of the Cossipore foundry.

3. This arrangement will, of course, be understood to be subject to such determination as the Government may hereafter come to regarding the permanent use of the Iron Bridge Yard; and in any case, as soon as Mr. Mather has finished the cotton-cleaning machines now under construction, he will be required to vacate the yard.

Council Chamber,
18 August 1849.

I have, &c.
(signed) *F. J. Halliday*,
Secretary to the Government of India.

From *J. H. Mather*, Esq., Superintending Government Cotton Experiments, to *W. Grey*, Esq.,
Under Secretary to the Government of India, Home Department.

No. 23.

Sir,

I HAVE the honour to request that the sub-treasurer may be authorised to advance, on my receipts, a further sum of two thousand Company's rupees (2,000 Company's rupees), on account of the new cotton-cleaning machines now in course of completion.

Iron Bridge Yard, Allipore,
21 July 1849.

I have, &c.
(signed) *J. H. Mather*, c. E.
Superintending Govt. Cotton Experiments.

(No. 474.)

From *W. Grey*, Esq., Under Secretary to the Government of India, to *J. H. Mather*, Esq.

No. 26.

Sir,

IN reply to your letter, dated the 21st ultimo, I am directed to inform you that the sub-treasurer has been instructed to advance, on your receipts, a further sum not exceeding 2,000 rupees, in such proportions as you may from time to time require, on account of the cotton-cleaning machines in course of completion.

I am directed to request that you will be good enough to report what progress you have made in the work, and within what period you expect that the whole number of machines will be completed.

Fort William,
11 August 1849.

I have, &c.
(signed) *W. Grey*,
Under Secretary to the Government of India.

From *J. H. Mather*, Esq., Civil Engineer, Superintending Government Cotton Experiments, to *W. Grey*, Esq., Under Secretary to the Government of India, Home Department.

No. 27.

Sir,

I HAVE this day had the honour to receive your letter, No. 474, dated the 11th instant; and, in reply to your 2d para. of that letter, I have the honour to inform you that the construction of the cotton machines has proceeded as rapidly as circumstances have permitted; the construction of the entire number having been carried on simultaneously, no one set is yet entirely finished, but the whole are in a very forward state; the date of their completion must entirely depend on the arrangements which may be made by Government regarding the Iron Bridge Yard.

2. I have already explained to you in my letters of the 2d and 13th of June last, the nature of the hindrances which I have met with, and I would only here state that had the sole charge of the yard been under my control I could have had all my work completed in the course of September; but in consequence of the absence of due supervision over the establishment I have been unable to urge on the work as rapidly as I could have desired.

I.

Bengal and
North Western
Provinces.

3. Since last addressing you on this subject I have been called on by the superintending engineer South Eastern Provinces, on behalf of the Military Board, to explain some of the statements contained in my letter of the 2d June to your address, and after due examination that officer, as well as the civil architect (who is nominally in charge of the yard), have both reported to the Board that it is desirable that the arrangement suggested in paragraph 7 of my letter, above alluded to, should be carried into effect; should it be considered expedient by Government to sanction this arrangement, I should hope to have the machines completed early in November.

I have, &c.

(signed) *J. H. Mather*, C. E.
Superintending Government Experiments.

Iron Bridge Yard, Allipore,
20 August 1849.

(No. 112.)

No. 28.

From the Consulting Engineer to the Government of India and Director of the Railway Department, to *F. J. Halliday*, Esq., Secretary to the Government of India; dated Calcutta, 13 December 1849.

Sir,

I HAVE the honour to forward, in original, a letter addressed to me by Mr. Mather, who is now constructing the cotton-cleaning machines, and I would respectfully recommend that Government would be pleased to grant him one of the cottage saw-gins forwarded by the Court of Directors to this country for experiment, as suggested in his letter.

I have, &c.

(signed) *F. W. Simms*, C. E.

No. 29.
Enclosure.

From *J. H. Mather*, Esq., C. E., Superintending Government Cotton Experiments, to
F. W. Simms, Esq., Consulting Engineer to the Government of India.

Sir,

HAVING heard from the Secretary of the Agricultural and Horticultural Society that the consignment of cottage saw-gins, forwarded by order of the Court of Directors to the Government of India, has reached Calcutta, I have the honour to request that you will have the kindness to forward my application to Government for one of these gins. This application is made with the view of cleaning a small quantity of short stapled "kupas," and of ascertaining the respective value of cotton cleaned by the cottage saw-gin and by the roller-gins which I am now constructing.

2. I am now preparing to have one or two sets of the new roller-gins at work about the end of the present month for your inspection, and should the above request be complied with the cottage-gin might also be worked at the same time.

I have, &c.

Iron Bridge Yard, Allipore,
12 December 1849.

(signed) *J. H. Mather*, C. E.,
Superintending Government Cotton Experiments.

(No. 793.)

No. 30.

From *W. Grey*, Esq., Under Secretary to the Government of India, to *W. Seton Karr*, Esq., Under Secretary to the Government of Bengal.

Sir,

Home Department.

I AM directed to forward copy of a letter from Mr. F. W. Simms, Civil Engineer, dated the 13th inst., and to request that one of the saw-gins received from the Honourable the Court of Directors may be placed temporarily at the disposal of Mr. Mather, if it can be done without inconvenience.

I have, &c.

Council Chamber,
21 December 1849.

(signed) *W. Grey*,
Under Secretary to the Government of India.

(No. 794.)

From *W. Grey*, Esq., Under Secretary to the Government of India, to *F. W. Simms*, Esq.,
Civil Engineer.

Sir,

I AM directed to acknowledge the receipt of your letter, No. 112, dated the 13th inst., and in reply to state that Mr. Mather's application for one of the cottage saw-gins will be referred to the Government of Bengal. The President in Council desires me to request that you will be good enough to report for the information of Government what progress Mr. Mather has made in the constructions of the cotton-cleaning machines on which he is now engaged, and within what further period he expects that they will be completed. His Honor in Council observes that Mr. Mather stated in a letter to the Government, dated the 20th of August last, that he hoped to have the machines completed early in November.

I.
Bengal and
North Western
Provinces.
No. 31.

Home Department.

Council Chamber,
21 December 1849.

I have, &c.
(signed) *W. Grey*,
Under Secretary to the Government of India.

(No. 40.)

From the Under Secretary to the Government of Bengal to *W. Grey*, Esq., Under Secretary
to the Government of India, Home Department; dated Fort William, 11 January 1850.

No. 32.

Sir,

IN reply to your letter, No. 793, of the 21st ultimo, I am directed by the Honourable the Deputy Governor to state that it has been ascertained that all the saw-gins were dispatched to the Upper Provinces on the 4th idem, with the exception of the one required for the Dacca farm, which has been also forwarded to its destination.

Revenue.

I have, &c.
(signed) *W. Seton Karr*,
Under Secretary to the Government of Bengal.

(No. 42.)

From *W. Grey*, Esq., Officiating Secretary to the Government of India, to *F. W. Simms*,
Esq., Civil Engineer.

No. 33.

Sir,

WITH reference to the first para. of my letter, No. 794, dated the 21st ultimo, I am directed to transmit the accompanying copy of a communication from the Under Secretary to the Government of Bengal, No. 40, dated the 11th instant.

Home Department.

Council Chamber,
17 January 1850.

I have, &c.
(signed) *W. Grey*,
Officiating Secretary to the Government of India.

EXTRACT from the Proceedings of the Honourable the President of the Council of India, in
Council, in the Home Department, under date the 10th May 1850.

From *A. H. Blechynden*, Esq., Deputy Secretary to the Agricultural and Horticultural
Society, to *W. Grey*, Esq., Under Secretary to the Government of India.

No. 21.

Sir,

THE Agricultural and Horticultural Society being desirous of possessing full-sized working models of all the cotton-cleaning machines known in practical use, with such others of improved sorts as may have been lately manufactured, I am desired by the Council to solicit that you will have the goodness to submit this its application to his Honor the President in Council, to be supplied with one of the machines which have been lately manufactured for Government by Mr. J. H. Mather, Civil Engineer, in order that it may be placed with other cotton-cleaning machines in the possession of the Society, for public inspection, in its rooms, in the Metcalfe Hall.

Metcalfe Hall, Calcutta,
6 May 1850.

I have, &c.
(signed) *A. H. Blechynden*,
Deputy Secretary A. and H. S.

I.

Bengal and
North Western
Provinces.

(No. 346.)

From *W. Grey*, Esq., Under Secretary to the Government of India, to the Military Board.

No. 22.

Gentlemen,

Home Department.

With reference to my letter, No. 309, dated the 26th ultimo, I am directed to request that you will have the goodness, on receiving charge of the cotton cleaning machines that will be delivered to you by Mr. Mather, to cause one of them to be placed at the disposal of the Agricultural and Horticultural Society, who will be advised accordingly.

Council Chamber,
10 May 1850.

I have, &c.
(signed) *W. Grey*,
Under Secretary to the Government of India.

No. 23.

(No. 347.)

From *W. Grey*, Esq., Under Secretary to the Government of India, to *A. H. Blechynden*, Esq., Deputy Secretary Agricultural and Horticultural Society.

Sir,

Home Department.

I AM directed, in compliance with the application submitted in your letter of the 6th inst., to inform you that the Military Board has been requested on receiving charge of the cotton-cleaning machines that will be delivered to them by Mr. Mather, to place one of them at the disposal of the Agricultural and Horticultural Society.

Council Chamber,
10 May 1850.

I have, &c.
(signed) *W. Grey*,
Under Secretary to the Government of India.

EXTRACT from the Proceedings of the Honourable the President of the Council of India, in Council, in the Home Department, under date the 23d May 1850.

(No. 288.)

No. 12.

From the Under Secretary to the Government of Bengal to *W. Grey*, Esq., Under Secretary to the Government of India, Home Department; dated Fort William, 23 February 1849.

Sir,

Judicial.

IN continuation of Mr. Under-Secretary Seton Karr's letter, No. 40, of the 10th ultimo, I am directed by the Honourable the Deputy Governor of Bengal, to request that one more of Mr. Mather's cotton-cleaning machines may be supplied in addition to the four therein applied for.

I have, &c.
(signed) *J. W. Dalrymple*,
Under Secretary to the Government of Bengal.

No. 13.

From Messrs. *Eglinton & Co.* to the Secretary to the Government of Bengal, Fort William.

Sir,

WE have the honour to request that you will be good enough to obtain and transmit to us an order from Government, directing Mr. J. H. Mather of the Iron Bridge Foundry, Allipore, to manufacture for us a churka for cleaning cotton, on the principle of the one which lately obtained the prize, in imitation of which, we understand, that gentleman is now engaged in manufacturing several for the use of Government.

The churka we require is intended for a firm at Moulmein, who are desirous of making experiments in cotton of the growth of that country.

Calcutta, 14 April 1849.

We have, &c.
(signed) *Eglinton & Co.*

We shall of course most willingly defray all charges,

(No. 331.)

TRANSFERRED to the Government of India, Home Department, for compliance.

By order of the Honourable the Deputy Governor of Bengal.

Fort William,
19 April 1849.

(signed) *W. Seton Karr*,
Under Secretary to the Government of Bengal.

(No. 268.)

From *W. Grey*, Esq., Under Secretary to the Government of India, to *W. Seton Karr*, Esq.,
Under Secretary to the Government of Bengal.

No. 14.

Sir,

WITH reference to the letter from Messrs. Eglinton & Co. transferred by your office Home Department. memorandum, No. 331, of the 19th instant, and herewith returned, I am directed to state, that Mr. Mather will be instructed to place six churkas at the disposal of the Government of Bengal instead of five, the number intimated in your letters of the 10th January and 23d February last, as likely to be required.

I have, &c.

Council Chamber,
21 April 1849.

(signed) *W. Grey*,
Under Secretary to the Government of India.

(No. 137.)

From the Consulting Engineer to the Government of India and Director of the Railway Department, to *F. J. Halliday*, Esq., Secretary to the Government of India; dated Calcutta, 4 April 1850.

No. 15.

Sir,

I HAVE the honour to forward in original the report of Mr. Mather, dated the 3d instant, to my address, on his progress during the last three months, with the 96 cotton-cleansing machines he is constructing for Government at the Iron Bridge Yard.

2. I beg to call to notice the end of the 1st para. of the said report, where it is stated that the work will be completed by the end of the present month, which will terminate the extension of time for that purpose sanctioned by the Honourable the President in Council, as stated in Mr. Under Secretary Grey's letter to my address No. 101, of the 8th February last, and consequently will terminate Mr. Mather's engagement with the Government.

3. I would also beg to request the decision of Government as to the disposal of the machines when completed, because if they are to be dispatched to distant places, it will be necessary to have them packed in cases to prevent injury; and if they are to be so appropriated, is it the will of Government that Mr. Mather shall procure (as he proposes in the 3d para. of his report) the necessary packing cases? The total cost of the 97 cases, together with the packing, he estimates at 231 rupees. It is proper I should state, that I do not think the making of the cases and packing the machines can be finished during the present month, and therefore if Mr. Mather be desired to do this additional business, he will have to be retained a week or two, probably a month longer in Government employ, but if this work is to be done I think it would be preferable to entrust it to him rather than another, because he will for his credit's sake have it done in the most careful manner.

4. I would also solicit the attention of Government to the request of Mr. Mather in his 4th para. to be informed if "it is the intention of Government to avail themselves of his services for the erection of any set or sets of the machines in the cotton districts," a course which I took the liberty of recommending in my letter to Mr. Grey, dated Cossipore, 20th September last.

5. Mr. Mather's present engagement with Government will cease upon the completion of the said 96 machines, and I would beg, as requested by Mr. Mather, respectfully to ask the favourable consideration of Government to the application in his 5th para. for continued employment in their service.

6. Should it be determined to defer sending the machines away for the present I shall be much obliged if Government will appoint some person to take charge of them when completed, as it will be impossible for me to do so, because I have no control or business in the Iron Bridge Yard, where they are being constructed, and have no place under my charge wherein to deposit them for safe keeping.

I have, &c.
(signed) *F. W. Simms*, C.E.

I.
Bengal and
North Western
Provinces.

From *J. H. Mather*, Esq., Civil Engineer, Superintending Government Cotton Experiments,
to *F. W. Simms*, Esq., Civil Engineer, Consulting Engineer to the Government of India.

No. 16.
Enclosure.

Sir,

I HAVE the honour to forward the following report of my work for the last quarter :
Since writing to you on the 14th January last, the construction of the cotton-cleaning machines has proceeded rapidly ; the only interruption has been caused by the number of workmen who have been detained from their work by the small-pox, which has been, and still is, raging in this neighbourhood, but notwithstanding this hindrance I still look forward to the final completion of the work this month, in accordance with the statement contained in the 9th para. of my letter of the 14th January last to your address.

2. You are already aware that I have had only one lathe here in which the rollers of the machines could be turned ; had it not been for this circumstance the whole eight sets of machines would have been completed before the present time ; very little work except the rollers now remains unfinished, and I have made arrangements for obtaining the use of two other screw-cutting lathes from private parties for the present month, in order to ensure the completion of the work as above specified.

3. I take the present opportunity to remind you that packing cases for the machines will be required previous to their despatch from Calcutta ; their cost as per margin* may be estimated at 231 rupees, and if this expenditure be sanctioned I can have the packing cases made up during the present month.

4. In anticipation of the immediate completion of my work I would request your attention to the 7th para. of my letter of the 19th September last, wherein I expressed a hope that the Government would entrust the erection and setting to work in the cotton districts of the machines to my charge in the first instance ; I in the same letter pointed out that had this been done in the case of the machines sent to Agra, the result of the trial would have been very different ; I need not now repeat the reasons urged in my letter of 19th September, but I would request you to inform me whether it is the intention of Government to avail themselves of my services for the erection of any set or sets of the machines in the cotton districts, as suggested in the letter above alluded to, and to what districts it is intended to despatch the machines.

5. Should it not be the intention of Government to avail themselves of my services in the manner above suggested, I would take this opportunity of requesting you to forward to Government my application for employment in any other department where my services might be found useful. You have had constant opportunities of noticing my work during the last two years and four months, and I trust that from your observations during that period you will consider yourself justified in recommending me for further employment under Government.

I have, &c.

(signed) *J. H. Mather*, C.E.

Iron Bridge Yard, Allipore,
3 April 1850.

Superintending Government Cotton Experiments.

(No. 377.)

No. 17.

From the Under Secretary to the Government of Bengal to *W. Grey*, Esq., Under Secretary to the Government of India, Home Department ; dated Fort William, 9 April 1850.

Sir,

Revenue.

I AM directed by his Honor the Deputy-governor of Bengal, to request that should his Lordship in Council see no objection thereto, 12 of Mr. Mather's cotton-cleaning machines, or as many as may be available, may be placed at his Honor's disposal to meet an application made by the Commissioner of the Tenasserim Provinces on behalf of a Mr. Darwood, of Moulmein.

I have, &c.

(signed) *W. Seton Karr*,

Under Secretary to the Government of Bengal.

	Rs.	a.	p.
*Ninety-six packing cases for machines at 2 rupees	-	192	-
One ditto for shafting and pullies	-	3	-
Charges for packing 97 cases, and painting directions, at 6 annas	-	36	-

Rs. 231 - -

(No. 308.)

From *W. Grey*, Esq., Under Secretary to the Government of India, to *F. W. Simms*, Esq.

Sir,

I AM directed to acknowledge the receipt of your letter, dated the 4th instant, with its original enclosure from Mr. Mather, reporting the progress made by him in the construction of the 96 cotton-cleaning machines at the Iron Bridge Yard.

2. As by this time the work has probably been completed, I am directed to request that you will have the goodness to instruct Mr. Mather to have 10 of the machines packed immediately, for despatch to the Government of Bombay, and two for despatch to the Government of Madras. These are all that need be packed at present, and the remaining 84 machines are to be made over to the Military Board, who will be instructed to receive charge of them from Mr. Mather.

3. The President in Council does not consider it necessary to retain Mr. Mather's services for the purpose of putting up the machines at the places where they are to be used, and Mr. Mather's employment under Government will cease therefore with the transfer of the machines to the Military Board. His Honor in Council will of course expect to receive, with such remarks as it may appear to you to call for, an accurate account of the true cost of the 96 machines which have now been made up by Mr. Mather, including every item of expenditure which has been incurred on account of the work, excepting only the salary drawn by Mr. Mather himself.

4. By the latest accounts laid before Government it appears that Mr. Mather, up to the end of 1849, had drawn from the general Treasury the sum of 6,000 rupees, and in addition to this the Military Board have submitted a statement, showing a debit against Mr. Mather, to the amount of *Rs. 4,147. 6. 8.*, of which *Rs. 1,750. 4. 4.* would seem to be for actual work done, and *Rs. 2,397. 2. 4.* for lathes and other articles supplied to Mr. Mather. These lathes his Honor in Council presumes are to be returned into store, but the usual charge for wear and tear should be debited against Mr. Mather's machines. This account from the Military Board does not appear to include any charges for coal, coke, and other stores, which it is apprehended Mr. Mather has received from the Iron Bridge Yard.

Council Chamber, 26 April 1850.

I have, &c.

(signed) *W. Grey*,

Under Secretary to the Government of India.

(No. 310.)

From *W. Grey*, Esq., Under Secretary to the Government of India, to *W. Seton Karr*, Esq., Under Secretary to the Government of Bengal.

No. 19.

Sir,

IN reference to the letters from your office, of the dates noted on the margin *, as also to Mr. Under-Secretary Grey's letter to Mr. Seton Karr's address, dated the 21st April 1849, I am directed to acquaint you that the cotton-cleaning machines ordered to be constructed under Mr. Mather's superintendence having been completed, or very nearly so, the Military Board have been instructed to receive charge of them, and to comply with any indents which the Government of Bengal may make; 18 machines have been applied for by the Deputy-governor, 10 by the Government of Bombay, and two by the Government of Madras, which will leave 66 in store available for further demands.

Home Department.

Council Chamber, 26 April 1850.

I have, &c.

(signed) *W. Grey*,

Under Secretary to the Government of India.

(No. 290.)

From *W. Grey*, Esq., Under Secretary to the Government of India, to Sir *H. C. Montgomery*, Bart., Chief Secretary to Government of Fort St. George, and No. 291, *J. G. Lumsden*, Esq., Secretary to Government of Bombay.

No. 20.

Sir,

I HAVE the honour to inform you that Mr. Mather's cotton-cleaning machines having been completed, the President in Council has directed $\frac{\text{two}}{\text{ten}}$ of them to be packed for despatch to your address, agreeably to the request contained in $\frac{\text{your}}{\text{Mr. Dep. Sec. Erskine's}}$ letter, dated the $\frac{17\text{th April } 1848.}{25\text{th March } 1848.}$

Home Department.

I am

* 10th January 1849; 23d February 1849; 9th instant.

I.
Bengal and
North Western
Provinces.

I am directed to state, that 66 of Mr. Mather's machines will remain in store; and should the Government of Fort St. George therefore require any larger number than that already indented for, they can be furnished on application.

Fort William, 26 April 1850.

I have, &c.

(signed) *W. Grey,*

Under Secretary to the Government of India.

(No. 292.)

No. 21. From *W. Grey*, Esq., Under Secretary to the Government of India, to *R. Thornton*, Esq., Assistant Secretary to Government, North Western Provinces.

Sir,

Home Department.

MR. MATHER having brought to completion the cotton-cleaning machines ordered to be constructed under his superintendence, I am directed to inquire if the Honourable the Lieutenant-governor would wish that any of the machines should be despatched for use in the Agra Presidency; after complying with the indents which have been already made, 66 of the machines will be left in store.

I have, &c.

(signed) *W. Grey,*

Under Secretary to the Government of India.

Fort William, 26 April 1850.

(No. 309.)

No. 22. From *W. Grey*, Esq., Under Secretary to the Government of India, to Military Board.

Home Department.

Gentlemen,

I AM directed by the President in Council to acquaint you, that the cotton-cleaning machines ordered to be constructed by Mr. Mather having been completed, or very nearly so, a communication has been made through Mr. Simms, directing Mr. Mather to make over 84 of the number to your Board. The receipt of these you will have the goodness to report to my office.

2. Your Board are requested to attend to the wishes of the Government of Bengal, in respect to any number of the machines that may be required by that Government.

I have, &c.

(signed) *W. Grey,*

Under Secretary to the Government of India.

Council Chamber, 26 April 1850.

(No. 142.)

No. 23. From *F. W. Simms*, Esq., Civil Engineer, to *W. Grey*, Esq., Under Secretary to the Government of India; dated Calcutta, 3 May 1850.

Sir,

UPON the receipt of your official letter, No. 308, of the 26th ultimo, I sent a copy to Mr. Mather, with directions to carry out the orders of Government contained therein.

In reply, I yesterday received a letter from him, dated 6th instant, informing me that his work is not yet quite completed; but that Mr. Mather may have the opportunity of speaking for himself, I send herewith his letter in original.

I have, &c.

(signed) *F. W. Simms, C. E.*

No. 24.
Enclosure.

From *J. H. Mather*, Esq., C. E., to *F. W. Simms*, Esq., C. E., &c. &c. &c., dated Allipore, 1 May 1850.

Sir,

I HAVE the honour to acknowledge the receipt of your letter of yesterday's date, enclosing a copy of Mr. Under Secretary Grey's letter (No. 308), of the 26th ultimo, to your address.

2. I have this day made arrangements for making up the 12 packing cases required for machines ordered to be sent to Madras and Bombay; they will, I expect, be ready, and the machines packed by the 12th instant, and I shall be obliged by your informing me to whom I should make them over for shipment.

3. I have also applied to the secretary to the Military Board to make arrangements for receiving back into store the turning lathes which were lent for my work, and to fix the amount

amount with which I am to be debited for their use ; as soon as this is done I shall be able to close the final accounts, and to hand them over to you.

4. Of the 96 machines, 68 are now complete, and three more will be completed to-day. These have all been set to work cleaning seed cotton. In the remaining 25 machines, 17 steel and seven wooden rollers with screws are still deficient, but at the rate at which I have turned out the work during the last month, the whole work will be completed by the time that the machines for Madras and Bombay, as above noted,* are ready for despatch. I would here state that the whole of the machines would have undoubtedly now been completed, as promised in my former letters, had it not been for the great difficulty experienced in getting the roller screws cut ; † Captain Broome was obliged, by a press of work at the Cossipore foundry, to take away from me the use of a screw-cutting lathe, formerly at work for me ; two other lathes for the use of which I had concluded arrangements when I last addressed you, viz., one in the mathematical instrument maker's department, and another belonging to a Mr. Madge, a workman in the Mint, have both been since found unsuited (not having the proper pinions) for cutting the exact pitch of screw which was required. I have thus had three screw-cutting lathes less than I had every reason to anticipate at work. I have at present the lathe you formerly saw in this yard, and another belonging to Mr. Turner's sugar works at Cossipore, cutting screws ; both these lathes I hired (as I formerly explained to you) at my private expense, and no charge has been or will be made to Government on account of them. As you are already well aware of the nature of this screw-cutting work, and the necessity of a peculiar description of lathe being used for the purpose, I trust that you will at once perceive that the delay has been unavoidable on my part. I would also mention, that from a knowledge that the work here was about to cease, my workmen (particularly the best of them) have shown great indifference as to their attendance during the past six weeks, and have, in many instances, sought and obtained work elsewhere ; in two cases men who were employed at the screw-cutting lathes, I have been obliged to seek the aid of the magistrate to bring them back to their work, and altogether, though I have been striving to the utmost of my ability to hasten the completion of the work, I have met with serious difficulties.

5. While making the above statements, however, I still desire to act up to the promises I have made, as far as I am able to do so, and I therefore hereby mention, that I shall not draw any salary for the portion of the present month during which I am employed in closing the work, neither shall the Government be called on to pay any further sum whatsoever, either for materials or wages ; I feel that I owe this in support of my own reputation, both with the Government and the public.

6. I hope to address you again regarding the machines in the course of a few days, when I send in the final accounts.

I have, &c.
(signed) *J. H. Mather.*

(Appendix A.)

COPY of Letter received from Captain A. Broome, Superintending Cossipore Foundry,
dated 5 April 1850.

My dear Sir,

HAVING a number of indents to complete this month, which closes the official year, I am sorry to say that I cannot spare the self-acting lathe for the screws you require, and therefore am obliged to return the rollers sent to-day per bearer.

J. H. Mather, Esq., Allipore.

Yours, &c.
(signed) *Arthur Broome.*

(No. 336.)

From W. Grey, Esq., Under Secretary to the Government of India, to F. W. Simms, Esq.

No. 25.

Sir,

In reply to your letter, No. 142, dated the 3d instant, I am directed to request that you will instruct Mr. Mather to make over to the Superintendent of Marine the 12 cases of cotton-cleaning machines, to be despatched to the Governments of Fort St. George and Bombay. Home Department.

2. The President in Council has noticed Mr. Mather's intimation that he will draw no salary after the 30th ultimo, and that the Government will be put to no further expense for materials or wages during the additional time required by him to complete and deliver over to the Military Board the machines constructed by him.

Council Chamber, 10 May 1850.

I have, &c.
(signed) *W. Grey,*
Under Secretary to the Government of India.

I.
Bengal and
North Western
Provinces.
No. 26.

(No. 337.)

From *W. Grey*, Esq., Under Secretary to the Government of India, to Captain *T. E. Rogers*,
Superintendent of Marine.

Home Department.

Sir,
MR. MATHER has been instructed to make over to you for shipment 12 cases, containing cotton-cleaning machines, intended for the Government of Fort St. George and Bombay. I am accordingly directed to request that on their receipt you will procure freight for the number of cases addressed respectively to the two ports, and forward to this office the bills of lading for the same.

Council Chamber, 10 May 1850.

I have, &c.
(signed) *W. Grey*,
Under Secretary to the Government of India.

(No. 341.)

No. 27.

Fort William, Home Department, 10 May 1850.

OFFICE MEMORANDUM.

THE Under Secretary in the Home Department has the honour to forward to the Financial Department, for information and for communication to the offices of Audit and Account, copies of the papers noted on the margin,* from which it will be seen that Mr. Mather's employment in the construction of cotton-cleaning machines ceased on the 30th ultimo.

(signed) *W. Grey*,
Under Secretary to the Government of India.

(No. 143.)

No. 28.

From *F. W. Simms*, Esq., C.E., to *W. Grey*, Esq., Under Secretary to the Government of India; dated Calcutta, 13 May 1850.

Sir,
I BEG to forward you in original a letter which I have this day received from Mr. Mather, respecting the cotton-cleaning machines.

I have, &c.
(signed) *F. W. Simms*, C.E.

No. 29.
Enclosure.

From *J. H. Mather*, Esq., C.E., to *F. W. Simms*, Esq., C.E., &c. &c. &c.; dated Allipore, 11 May 1850.

Sir,
IN continuation of my letter of the 1st instant, I have now the honour to call your attention to the 3d para. of Mr. Under Secretary Grey's letter, No. 308, of the 6th ultimo, to your address, from which it appears that Government decline acceding to my request, conveyed in my letter to you of the 3d ultimo, that I might be entrusted with the erection and setting to work of the first set of the new cotton machines that is dispatched by Government to the cotton districts.

2. As a servant of Government, it would, I am aware, be out of place for me to agitate this question any further, but as a mechanical engineer, and the inventor of a new machine which, though it may fall short of what may ultimately be produced, has been generally acknowledged as an improvement on existing machines of a like nature, and as such has been awarded their gold medal and a prize of 500 rupees by the Agricultural Society of India, I feel it incumbent on me to enter this my most respectful protest against the decision of Government in this matter. In my letter to you of the 19th September last, I fully stated my reasons for the request above alluded to, and from subsequent conversations which I have had with you on the subject, I am induced to believe that you coincide in the view which I take of the matter; viz., that the maker of a new machine cannot be held responsible for the efficiency of its performance unless an opportunity be afforded him of seeing it set fairly to work, and of then so regulating and adjusting it as circumstances may require. As, however, the President in Council has decided that my employment under
Government

* From Officiating Secretary to Government of India to *F. W. Simms*, Esq., dated 8th February 1850. Extract from Mr. Mather's letter, dated 1st May 1850, p. 5. Extract from letter of Government of India to Mr. Simms, dated 10 May 1850, para. 2.

Government is to cease, without such opportunity being afforded to me, I desire simply to record that I cannot consider myself responsible for any failure that may attend the first setting to work of the machines, if the same be not entrusted to my supervision. I feel called upon to make this statement in order to protect my own reputation both here and with my friends in Liverpool and Manchester, who have expressed much interest in the experiments in which I have been engaged.

3. I take this opportunity most respectfully to submit a request that 12 of the machines, now about to be made over to the Military Board, may be lent to me by Government for a short time, for the purpose of trying some experiments in cleaning seed cotton, and of ascertaining the most desirable speed at which the machines can be worked, their out-turn, &c. &c. Though such experiments conducted in Calcutta cannot afford data of equal importance and certainty as would result from a trial in the cotton districts, it would nevertheless be a great satisfaction to myself, from the interest I have taken in the matter, and the large sum I have expended from my private purse on the present machines, to be allowed the loan of the 12 machines as above requested, it being, of course, clearly understood that the experiment is conducted solely at my private expense.

4. I have to request that you will forward the above application to Government as early as may be convenient to yourself, and in the meantime, till I receive a reply I shall only make over 72 instead of 84 machines to the Military Board, retaining the 12 machines till I receive further instructions.

I have, &c.
(signed) *J. H. Mather, C.E.*

NOTES by the Members of Government.

It will be desirable, I think, in every point of view, that Mr. Mather should superintend the working of the machines in the first instance.

He may therefore be allowed the loan of the 12 as requested for an experimental trial, though he ought to have proved long ago.

The cotton districts, I believe, are in the Central Provinces, and if it is decided that a portion of the machines are to be sent there, it may be advisable, in order that the scheme be fairly tested and carried out, to send Mr. Mather with them to instruct the natives in the use of them.

Some other person, European or native, unconnected with Mr. Mather, might be sent to witness the operation, and to report the result to Government.

The time to be occupied on the trial should be limited. Mr. Mather, whilst he is employed, must of course be remunerated and his expenses to and fro paid, but as he would in all probability have only to proceed as far as Patna or Dinapore (if so far), the expense would not be much.

Unless this is done, the money that has been expended already upon these machines will have been thrown away uselessly.

It will at any rate be satisfactory to know whether they actually do answer the purpose for which they are intended, or if the whole scheme is to be pronounced a failure.

16 May 1850.

(signed) *J. H. Littler.*

I BELIEVE they are intended for Agra. I have seen plans of the machines, which are anything but clear.

Reserve. I have put the plans with the papers.

(signed) *F. Currie.*

MR. MATHER has not the gift of ubiquity, and cannot accompany all his machines to their several destinations. If they cannot be set up and worked at Agra, Bombay, Madras, or elsewhere, without Mr. Mather's actual personal superintendence, the whole affair may be considered little better than a hoax; but I hope, both for Mr. Mather's sake and our own, that it will prove otherwise.

We have no present use for all these machines, and I would let Mr. Mather have the use of the 12 he asks for a limited time, he undertaking to deliver them up in good order.

(signed) *J. Lowis.*

ON the introduction of a new machine, even among persons familiar with the use of machinery, it is of the utmost importance that it should be set up, and its early performance superintended by the makers of it.

The difference between success and failure often depends on minute details, which would appear trivial to one not thoroughly conversant with the subject. It does not at all follow, because Mr. Mather is anxious to witness the performance of those first set up, in order that he may be sure of their having fair play, and may himself observe if anything is wanting to them, and ascertain the most advantageous rate of speed, &c., that his presence will be always needed, and everywhere.

I.

Bengal and
North Western
Provinces.

Some years ago I put up a thrashing-mill on a new principle in Fife, where thrashing-mills are as common as churches are here; but the inventor thought it worth while to come from Glasgow to put it up himself.

(signed) *J. E. D. Bethune.*

(No. 362.)

No. 21.

From *W. Grey*, Esq., Under Secretary to the Government of India, to
F. W. Sinms, Esq., C.E.

Home Depart-
ment.

Sir,

I AM directed to acknowledge the receipt of your letter, No. 143, dated the 13th instant, with enclosure, and, in reply, to state, that the President in Council authorises the loan to Mr. Mather of the 12 cotton-cleaning machines, referred to in his communication to your address, for experimental purposes.

Council Chamber, 23 May 1850.

I have, &c.
(signed) *W. Grey*,
Under Secretary to the Government of India.

(No. 363.)

No. 32.

From *W. Grey*, Esq., Under Secretary to the Government of India, to the Military Board.

Home Depart-
ment.

Gentlemen,

IN continuation of my letter, No. 309, dated the 26th ultimo, I am directed to acquaint you, that the President in Council has granted the loan to Mr. Mather of 12 of the cotton-cleaning machines, therein referred to, for experimental purposes.

Council Chamber, 23 May 1850.

I have, &c.
(signed) *W. Grey*,
Under Secretary to the Government of India.

EXTRACT from the Proceedings of the Honourable the President of the Council of India, in Council, in the Home Department, under date the 31st May 1850.

(No. 1969.)

No. 5.

From Captain *T. E. Rogers*, Superintendent of Marine, to *W. Grey*, Esq., Under Secretary to the Government of India, Home Department.

Sir,

I HAVE the honour to acknowledge the receipt of your letter, No. 337, dated the 10th instant, and to inform you, that, having received from Mr. Mather the 12 cases containing cotton-cleaning machines therein referred to, I have caused the 10 cases for Bombay to be shipped on the "Fuzul Rohomany," Captain Middleton, and the two cases for Madras on the Peninsular and Oriental Steam Company's steamer "Oriental," and I beg to forward to you herewith, for transmission to the authorities at Bombay and Madras, bills of lading for the cases in question.

Fort William,
Marine Superintendent's Office,
31 May 1850.

I have, &c.
(signed) *T. E. Rogers*,
Superintendent of Marine.

No. 6.

From *W. Grey*, Esq., Under Secretary to the Government of India, to Chief Secretaries to the Government, Fort St. George, No. 349, and Bombay, No. 348.

Sir,

IN continuation of my letter, No. 290,* dated the 26th April last, I have the honour to forward the accompanying bill of lading for two † cases containing cotton-cleaning machines, shipped on the Peninsular and Oriental Steam Navigation Company's vessel the "Oriental." ‡

Fort William, 31 May 1850.

I have, &c.
(signed) *W. Grey*,
Under Secy. to the Govt. of India.

Home Depart-
ment.

*291.

†ten.

‡board the "Fuzul
Rohomany."

(No. 1526 of 1850.)

From *J. Thornton*, Esq., Secretary to Government, North Western Provinces, to
W. Grey, Esq., Under Secretary to Government of India, Fort William.

No. 7.

Sir,

I AM directed to acknowledge the receipt of your letter, No. 292, dated 26 ultimo, and, in reply, to acquaint you, that this Government do not require any more of the cotton-cleaning machines therein referred to.

Head Quarters, 21 May 1850.

I have, &c.
(signed) *J. Thornton*,
Secy. to Govt. N. W. P.

EXTRACT from the Proceedings of the Honourable the President of the Council of India, in Council, in the Home Department, under date the 7th June 1850.

(No. 691.)

From the Military Board to Major-General the Honourable Sir *John Hunter Littler*, G.C.B., President of the Council, of India, in Council, Home Department; dated Fort William, the 29th May 1850.

No. 19.

Honourable Sir,

IN compliance with the orders of Government, contained in Mr. Under Secretary Grey's letter, No. 346, of the 10th instant, for the supply of a cotton-cleaning machine to the Agricultural and Horticultural Society, we do ourselves the honour to report, for the information of your Honor in Council, that the Deputy Principal Commissary of Ordnance in charge of the arsenal has been instructed to place one at the disposal of that society.

Ordnance Department.

We have, &c.
(signed) *W. H. L. Frith*, Brigr. Comt.
F. S. Hawkins, Lt.-Col.
W. Mactier, Lt.-Col.

EXTRACT from the Proceedings of the Honourable the President of the Council of India, in Council, in the Home Department, under date the 14th June 1850.

(No. 807.)

From the Military Board to Major-General the Honourable Sir *John Hunter Littler*, G.C.B., President of the Council of India, in Council, Home Department; dated Fort William, the 3d June 1850.

No. 10.

Honourable Sir,

IN reply to Government letter in the Home Department, No. 309, of the 26th April last, regarding 84 cotton-cleaning machines under construction by Mr. Mather, we do ourselves the honour to report, for the information of your Honor in Council, that 72 of the machines in question have been received into the arsenal of Fort William, and 12 retained by Mr. Mather for experimental purposes, under the authority of the Government.

Ordnance Department.

2. Of the 72 machines in the arsenal, one has been issued to the Agricultural and Horticultural Society, and 18 reserved for the Government of Bengal, under authority.

We have, &c.
(signed) *W. H. L. Frith*, Brigr. Comt.
F. S. Hawkins, Lt.-Col.
W. Mactier, Lt.-Col.

(No. 152.)

From *F. W. Simms*, Esq., C.E., the Consulting Engineer to the Government of India, and Director of the Railway Department, to *W. Grey*, Esq., Under Secretary to the Government of India; dated Calcutta, 10th June 1850.

No. 11.

Sir,

I BEG to enclose the copy of a letter addressed by myself to Mr. Mather, No. 150, of the 5th instant, in compliance with the desire of his Honor the President in Council, as conveyed to me in your letter, No. 308, of the 26th April last; and also Mr. Mather's reply
296—Sess. 2. (dated

I.
Bengal and
North Western
Provinces.

dated the 7th instant), thereto, enclosing his memorandum, which I called for, regarding his setting up of the new cotton-cleaning machines: both his letter and its enclosure I send in original.

2. It will doubtless be expected of me to remark upon this communication, as Mr. Mather's letter correctly describes it as "a very meagre document, for want of information on the all-important point of speed at which the machines are to be driven, the height from the ground at which they are to be placed, in order to ensure the proper current of air, or the most desirable power to be employed in driving them."

3. As respects the two first points named by Mr. Mather, I take it that, as they can only be settled by practical experiment, they can be arrived at in that way by any intelligent officer to whose care the working of the machines may be confided; and although I have formerly stated (and recommended) that it was desirable for Mr. Mather to set the first of his machines to work, yet that was chiefly with a view to ensure to them a trial under unquestionable circumstances, or rather to prevent him or others from complaining, in the event of any degree of failure, that his machines had not been done justice to.

4. As respects the third point named by Mr. Mather, as to "the most desirable power to be employed for driving the machines," I am surprised at his mooted such a question, because he has all along repeatedly stated that 12 of his machines could be, and were adapted to be, worked by a cattle mill, and he himself applied to Government, during my absence last year, for their sanction to erect such a mill, at a cost of 530 rupees, which was granted.—See your letter to Mr. Mather's address, No. 209, of the 24th March 1849.

I have, &c.
(signed) F. W. Simms, C. E.

(No. 150.)

From F. W. Simms, Esq., Civil Engineer, to J. H. Mather, Esq., Iron Bridge Yard.
dated 5th June 1850

Sir,

I BEG to call your attention to the 3d para. of Mr. Under Secretary Grey's letter to my address, No. 308, of the 26th April last, of which a copy was sent you, wherein it is said, "His Honor in Council will, of course, expect to receive, with such remarks as it may appear to you to call for, an accurate account of the true cost, &c. &c."

2. The remarks his Honor expects me to call for consist of a plain statement of the manner of setting up the machines for use, to be forwarded by Government with them, whereby an intelligent officer may set them to work at any part of the country: I take it that this will be no difficult matter; for if it were otherwise, such machines would not answer any useful purpose in a country like India. I have therefore to request you will have the goodness to supply such descriptions as I have named.

I have, &c.
(signed) F. W. Simms, C. E.

(True copy.)

(signed) D. C. Coomar.

From J. H. Mather, Esq., C. E., to F. W. Simms, Esq., C. E., &c. &c. &c.,
dated Calcutta, 7th June 1850.

Sir,

I HAVE the honour to acknowledge the receipt of your letter, No. 150, of the 5th instant, informing me that the President in Council desires me to furnish "descriptive instructions" for the setting up of the cotton machines.

2. Though I have every desire to comply promptly with the above requisition of his Honor in Council, I fear that you will consider the memorandum which I now enclose to be a very meagre document, and of little use, if any, as far as the machines themselves are concerned, as it does not give any information on the all-important point of the speed at which they are to be driven, the height from the ground at which they are to be placed, in order to ensure the proper current of air, or the most desirable power to be employed for driving them. On these points, without practical local experience on the spot where the cotton is grown, and where consequently the "kupas" comes to hand in a fresh state, it is impossible for me to offer an opinion.

3. With regard to that part of your letter noted in the margin,* I would observe, that
(though

* "I take it that this will be no difficult matter; for if it were otherwise, such machines would not answer any useful purpose in a country like India." Extract from letter, No. 150, from F. W. Simms, Esq., to J. H. Mather, Esq., dated 5th June 1850.

No. 12.
(Enclosure.)

No. 13.
(Enclosure.)

(though I am unable to send you the full particulars required) all the required information could be obtained in the course of three weeks' observation of one set of machines when properly erected and experimented on; and when once obtained, such information would be available for all similar machines, and might be so written out as to enable any officer, European or native, in any part of India, to set the machines to work.

4. I have, in conclusion, again to express my great regret that I have not been allowed to superintend the erection of the first set of machines; after having done which, I could have furnished full and complete descriptive instructions, according to your request.

I have, &c.
(signed) *J. H. Mather*, C. E.

1.
Bengal and
North Western
Provinces.

MEMORANDUM regarding the Setting Up of the New Cotton-cleaning Machines.

1. Not less than 12 machines should be erected in one cleaning-house, and a strong teak wood frame or bed-plate 28 feet $\times$ 2 feet should be provided for each set of machines, or to which the 12 machines would be bolted.

2. A shed, 30 feet $\times$ 12 feet broad $\times$ 7 feet high, with a 4-feet verandah on one side, should be erected as a cleaning-house: the sides of the shed, as well as the outer side of the verandah, should be inclosed with boards or mats.

3. The frame, or bed-plate, should then be placed on the floor of the shed one foot from the partition dividing the shed from the verandah, and parallel with the same, the frame being very carefully levelled, and the machines then placed thereon, and bolted down.

4. An iron shaft, 28 feet long $\times$ 1½ inch diameter, should be fixed by means of brackets or standards to the frame, on which shaft there should be 12 pulleys fixed, to correspond with the driving pulleys of the machines, and connected with them by leather straps; at the end of the shaft another pulley should be keyed on, to which the motive power would be conveyed by a strap from the cattle mill or other engine (as the case might be), which would occupy a distinct building.

5. From the back of each machine a wooden spout should be carried through the partition into the verandah room, through which the cleaned cotton would be discharged: the verandah room should be carefully closed in on all sides, and only opened once a day for the removal of the cleaned cotton.

Calcutta, 7 June 1850.

EXTRACT from a Despatch from the Government of India to the Honourable the Court of Directors, in the Home Department, dated 28th January, No. 5 of 1852.

20. The Military Board having represented to us that the 67 cotton-cleaning machines remaining in store in the arsenal of Fort William occupied space which could not conveniently be spared, and required constant attention to prevent their sustaining injury, we directed that they should be sold by auction.

Disposal of the cotton-cleaning machines remaining in the arsenal of Fort William. Home Cons., 18 July 1851, Nos. 14 and 15.

EXTRACT from the Proceedings of the Honourable the President of the Council of India, in Council, in the Home Department, under date the 18th July 1851.

(No. 5190.)

From the Military Board to Major-General the Honourable Sir *John Hunter Littler*, G. C. B., President of the Council of India, in Council, Home Department; dated Fort William, the 18th January 1851.

Honourable Sir,

WITH reference to Government letter, in the Home Department, No. 309, of the 26th April last, directing the receipt into the arsenal of 84 cotton-cleaning machines, we do ourselves the honour to forward, for the information of your Honor, the accompanying copy of a letter, No. 2002, of the 28th ultimo, from the Deputy Principal Commissary of Ordnance, on the subject, and, with reference thereto, to solicit instructions for the disposal of the number (67) at present remaining in the arsenal, as it appears they occupy space which cannot be conveniently spared.

No. 14.
Ordnance Department.

Abstract.
Submit copy of a letter from the Deputy Principal Commissary of Ordnance, soliciting orders for the disposal of 67 cotton-cleaning machines remaining in the arsenal of Fort William.

I.

Bengal and
North Western
Provinces.

2. Referring to the original number of machines ordered into the arsenal (84), 17 have been issued under the orders of Government, as follows:—

1 to the Agricultural and Horticultural Society, per letter No. 346, of the 10th May 1850, from the Under Secretary to Government, Home Department.

1 to Commissioner, Assam.

2 to Commissioner, Arracan.

12 to Commissioner, Tenasserim Provinces.

1 to Mr. Marshall, No. 783, of 2 August, from Tenasserim Provinces.

17

Letter No. 565, of
the 11th June, from
the Under Secre-
tary to the Govern-
ment of Bengal.

Fort William,
18 January 1851.

We have, &c.
(signed) *W. H. L. Frith*, Brigr.-Comm.
F. S. Hawkins, Lt.-Col.
W. Mactier, Colonel.

(No 2002.)

From the Deputy Principal Commissary of Ordnance in charge of the Arsenal,
Fort William, to the Secretary Military Board.

Sir,

REFERRING to your letter, No. 1026, of the 15th June last, I have the honour to request, that, as the cotton-cleaning machines, of which there are 67 remaining, occupy considerable space, and require constant attention, to prevent their sustaining injury while lying in store, you will be so good as to bring them to the notice of the Board, with a view to the disposal of them.

Fort William, Arsenal Office,
28 December 1850.

(True copy.)
(signed) *J. P. Beadle*, Offg. Secretary.

(No. 594.)

No. 15.

From *A. R. Young*, Esq., Under Secretary to the Government of India, to the
Military Board.

Gentlemen,

Home Depart-
ment.

WITH reference to your letter, No. 5190, dated the 18th January last, I am directed by the President in Council to request that, after full advertisements in the Calcutta papers, your Board will have the goodness to sell by auction the 67 cotton-cleaning machines therein referred to.

Fort William, 18 July 1851.

I have, &c.
(signed) *A. R. Young*,
Under Secy. to the Govt. of India.

EXTRACT from a Despatch from the Government of India to the Honourable the Court of Directors in the Home Department; dated the 10th May, No. 24 of 1852.

16. The cotton-cleaning machines constructed by Mr. Mather having been put up for sale as authorised by us, and reported to your Honourable Court in para. 20 of our letter, No. 5 of 1852, dated 28 January, and the bid not having exceeded five rupees for each, we directed the Military Board to ascertain from the Commissary of Ordnance at Allahabad, if at that station, or at Mirzapore, a reasonable price could be obtained for the machines.

Inquiries directed to be made of the Commissary of Ordnance at Allahabad, if at that station, or at Mirzapore, a reasonable price could be obtained for Mather's cotton-cleaning machines. Home Cons., 28 Nov. 1851, Nos. 39 and 40.

No. 39.
Ordnance Depart-
ment.

EXTRACT from the Proceedings of the Honourable the President of the Council of India, in Council, in the Home Department, under date the 28th November 1851.

(No. 5343.)

Abstract.
States that the sale
of cotton-cleaning
machines in deposit
at the arsenal has
been postponed for
the low price in
Calcutta.

From the Military Board to Major-General the Honourable Sir *John Hunter Littler*, G. C. B.,
President of the Council of India, in Council, Home Department.

Honourable Sir,

WITH reference to Government letter in the Home Department, No. 594, of the 18th July last, authorising the sale of 67 cotton-cleaning machines in deposit at the arsenal, we do ourselves the honour to report, for the information of your Honor in Council, that, after
full

full advertisement in the Calcutta papers at intervals during the month of August last, the articles were put up for sale by Messrs. Mackenzie, Lyall & Co., and there being only one bidder at five rupees each, the auctioneers declined accepting the bid without further reference.

2. Under the circumstances of the very low price offered for the machines, our Board have ordered their sale to be postponed pending this reference; and we suggest that Captain Channer, Commissary of Ordnance at Allahabad, be instructed to make inquiries at that station and at Mirzapore, with a view to ascertaining if a higher price could not be obtained in that quarter, before disposing of them in Calcutta to such disadvantage.

We have, &c.
(signed) *S. Shaw*, Brigadier.
F. S. Hawkins, Colonel.
W. Mactier, Lt.-Col.

Fort William, 6 November 1851.

(No. 949.)

From *A. R. Young*, Esquire, Under Secretary to the Government of India, to
Military Board.

No. 40.

Gentlemen,

I AM directed to acknowledge the receipt of your letter, No. 5343 of the 6th instant, and in reply to state that the President in Council approves of your suggestion, and authorises you to ascertain from the Commissary of Ordnance at Allahabad, if at that station, or at Mirzapore, a reasonable price could be obtained for the cotton-cleaning machines ordered to be sold. Home Department.

I have, &c.
(signed) *A. R. Young*,
Under Secy. to the Government of India.

Council Chamber, 25 November 1851.

EXTRACT from a Despatch from the Government of India to the Honourable the Court of Directors, in the Home Department, dated the 8th April 1853, No. 22.

21. The authorities in Bombay having pronounced Mather's cotton-cleaning machine to be inferior to the native churka, the Government of that Presidency did not desire to have any further supply of them.

Mather's cotton-cleaning machine pronounced by the Bombay authorities to be inferior to the native churka. The machines in store ordered to be sold to the highest bidder at Calcutta, there being no chance of disposing of them either in the Allahabad or Benares district.

22. In para. 16 of our letter, No. 24 of 1852, dated 10th May, we informed your Honourable Court that the Military Board had been directed to ascertain if such of the machines as were in store could not be disposed of at Allahabad or Mirzapore on better terms than had been offered for them at Calcutta. The Military Board reported that there was no chance of disposing of the machines either in the Allahabad or Benares district; we therefore authorised their being sold by public auction at Calcutta to the highest bidder.

Home Cons., 5 Nov. 1852, No. 15 to 17; 29 Nov. 1852, No. 26; 21 Jan. 1853, Nos. 27 and 28.

EXTRACT from the Proceedings of the Most Noble the Governor-General of India in Council, in the Home Department, under date the 5th November 1852.

(No. 6389 of 1852.)

From *A. Malet*, Esquire, Chief Secretary to the Government of Bombay, to *J. P. Grant*, Esquire, Secretary to the Government of India.

No. 15.

Sir,

I HAVE been directed to transmit for the purpose of being laid before the Most Noble the Governor-General of India in Council, extracts* of such portions of a memorandum drawn up in this office as refer to the cotton-cleaning machine† invented by Mr. Mather, and to intimate that the Right Honourable the Governor in Council does not require any more of them. Territorial Department, Revenue.

I have, &c.
(signed) *A. Malet*,
Chief Secy. to the Government of Bombay.

Bombay Castle, 14 October 1852.

* Paras. 1 to 13.

† See letters from the Government of India, Nos. 231 and 813, dated 4 March and 21 October 1848.

I.
Bengal and
North Western
Provinces.

EXTRACT of such Portions of a Memorandum drawn up in the Revenue Secretary's Office, as refer to the Cotton-cleaning Machine invented by Mr. Mather.

ON the 4th March 1848 * the Government of India transmitted copies of certain papers respecting a new cotton-cleaning machine, or "improved Indian churka," invented by Mr. Mather, civil engineer, for the experimental cotton works in the North Western Provinces.

2. The machine is thus described by Mr. F. W. Simms, consulting engineer to the Government of India, and Director of the Railway Department, in his letter to Mr. Bushby of the 10th January 1848.

"1st. The original native machine for cleansing the cotton, called the churka, appears not to be badly adapted for the purpose, and with the alterations and additions proposed, and now being applied thereto by Mr. Mather, promises, in my opinion, to correct its defects and supply what is wanting to make it effectually answer; as it now stands it frees the cotton from the seeds effectually, but does not remove the bits of leaves and other trash which it contains, and which it is necessary to remove to render the article marketable. I would also notice that the four-threaded endless screw for driving the upper roller is an objectionable application.

"2d. The machine constructed at Manchester, which Mr. Mather called 'Mr. Potter's,' I have also seen: it has a defect which the native churka is free from, namely, the large size of the wooden roller, which allows of many of the seeds passing through them with the cotton (arising from the seeds varying in size); these mostly get crushed in the passage, and the oil, as I suppose, being liberated, stains a considerable portion of the cotton in which they have been crushed; besides this, the seeds are lost, and their fragments have also to be separated in addition to the before-named extraneous matter. The above is not the only defect in the machine; this arrangement of the screws, &c., for pressing down the upper roller is bad, and the bearings for the shafts are deficient.

"3d. The new arrangement of the churka now being made by Mr. Mather was lastly brought to my notice, and appears to be very important; the chief alterations are the following: a decrease in the size of the wooden roller to nearly the mean diameter of that in the native churka, which I expect will ensure a perfect disengagement of the cotton seeds without injuring them, so that they will all be available for further cultivation; also the introduction of a fan with brushes attached to its arms, and adjusted to touch the roller three-quarters of an inch below the line of contact of the two rollers through which the cotton passes, thus avoiding the shortening or tearing of the staples next the iron grid placed below the brush-fan, through which the dust and refuse fall away from the cotton; the boxing up of the machine and making it deliver the cleansed cotton into an adjoining room; and lastly, the introduction of weights for pressing down the upper roller instead of screws, &c.

"I would also observe that the arrangement of the spur-wheel and pinion of the new machine for communicating motion is infinitely preferable to the endless screw of the original churka.

"With the above alterations and arrangements I expect that the machine will be found to answer all the purposes desired, but it would be advantageous if the Hon. the Lieutenant-Governor of the North Western Provinces would direct that a supply of the seed-cotton (or kupas), not less than three maunds, be forthwith remitted to Calcutta, to determine by actual experiment the real merits of the machine before it leaves the workshop, that any alteration suggested thereby be made."

3. At the request of this Government † 10 of these machines were furnished by the Supreme Government, who intimated, in their letter of the 21st October 1848, No. 813, that Mr. Mather's machine had been tested and found to answer its purpose very well, so far as it was possible to judge from a merely experimental working; and in their subsequent communication of the 26th April 1850, that 66 of Mr. Mather's machines will remain in store, and should the Government of Bombay therefore require any larger number than that already indented for, they can be furnished on application.

4. Copy of the correspondence accompanying the letter from the Government of India of 4 March 1848, No. 231, and two of the machines, were sent to each of the places noted in the margin, ‡ with a request that the collectors would report as to their utility and their superiority or otherwise over the gins at work in their districts and the machines used by the natives.

5. The collector of Broach submitted to Government extract of a letter received from Mr. J. Sandon, to whom the machines in question were temporarily made over for trial by the late collector, Mr. Davies.

6. Mr.

* No. 231, Mr. Mather's cotton-cleaning machine.

† Government letter, No. 1725, dated 25th March 1850.

‡ Dharwar, Belgaum, Sattara, Khandesh, Broach.—Government letter, No. 4248-52, dated 24 May 1850.

S. O.

See para. 1 of this Memo.

6. Mr. Sandon stated that—"Para. 2. I have given one of the machines in question a fair trial, and as respects its mechanical construction, I consider it infinitely superior to the native churka, but as regards its efficiency as a cotton-cleaning machine, the latter is fully its equal in every respect, while the cost is as 30 to 1 against Mr. Mather's machine; the adoption of which, in my opinion, would only be attended with a useless and a wasteful expense."

"Para. 3. I may add that Mr. Mather's machine is merely a modification of a useless one which came out some years ago under the name of 'Glasgow churka.'"

7. The commissioner of Sattara forwarded to Government a letter, in which Mr. Vany, the superintendent of cotton experiments at that place, stated that "Mr. Mather's churka is unable to compete with the saw-gin, and is a very slight, if any, improvement on the native churkas."

8. The collector of Belgaum annexed the reports of Captain Wingate, Revenue Survey Commissioner, and of Messrs. Blount and Frost, the superintendent and engineer of the cotton experiments in the Southern Mahratta country, showing the result of the experiments made with that machine in their presence at Dharwar.

9. Captain Wingate stated that—"2d. Mr. Mather's machine is an adaptation of the native churka, and differing from it chiefly in having the motion communicated to the wooden roller by an iron pinion and spur-wheel, turned by a strap from a driving wheel; the small iron roller is worked by an endless screw; the machine is boxed in and fitted with a revolving brush, like the saw-gin, to blow the cotton away from the dust and deliver it from the end of the box. This machine Mr. Frost informed me cost about 80 rupees."

"3d. Mr. Mather's churka was tested with an ordinary seven-saw gin, and also with a churka made by Mr. Frost, of a simpler* construction, which cost about 15 rupees. Mr. Frost's churka differs chiefly from Mr. Mather's in having the motion communicated to both rollers by means of leather bands, and in not being fitted with a revolving brush or with a long box for the delivery of the wool; Mr. Frost's churka has a small fly-wheel attached to the smaller iron roller, to give steadiness to its motion and lessen the chance of the driving-band slipping. The length of the cleaning-rollers is the same in both churkas, viz. 13 inches, but their diameter differs; in Mr. Mather's the diameter of the wooden roller is $1\frac{3}{4}$ inches, and that of the iron roller half an inch; in Mr. Frost's the diameter of the one is $1\frac{1}{4}$ inches, and of the other five-eighths of an inch. Both churkas require two persons to work them, one to turn the driving-wheel, and the other to feed the machine with cotton. Mr. Frost's machine can, however, be worked without the driving-wheel by the same person who feeds it, and who then turns the rollers by means of a small winch with one hand while he feeds them with the other."

* See below, paras. 14 to 19 of this Memo.

7. The trials then, though not conclusive as to the absolute capabilities of either churka compared with the seven-saw gin, or with the foot-roller commonly used in this province, are decisive as to the relative merits of the two churkas, and establish the great superiority of Mr. Frost's over that constructed by Mr. Mather of Calcutta. The former turns out one-half more of wool than the latter, while it can be made for less than one-fifth of the price.

10. Mr. Blount was of opinion that—"4. Mr. Mather's churka is a well-finished, neat machine, but it is not more effective than an ordinary native churka; and as I think it cannot, even in the hands of persons accustomed to work the churka, be made to clean a quantity much in excess of the ordinary native machine, there can be no expectation that it can be introduced amongst the ryots and dealers in the Southern Mahratta country for cleaning of cotton. Mr. Mather's churka is similar to the one made by Mr. Burn, and sent by Government to Dharwar for trial in 1848; both machines have a brush attached, which is of no actual advantage (as it does not take out a particle of either leaf or dirt); the rollers are moved by a number of cog-wheels, and put in motion, in Mr. Burn's churka, by a handle attached to the machine; Mr. Mather's churka differs only in having an endless-screw on the ends of the roller, and the motive power given with a detached hand-wheel; this complication of cog-wheels and endless-screws is very objectionable, and is not necessary; the only object in applying them, I suppose, was to increase the speed of the rollers, and this was obtainable by a much simpler application of wheels and straps, as applied to the churka made up by Mr. Frost and tried at the same time with Mr. Mather's."

11. "Mr. Frost considered Mr. Mather's machine to be of excellent workmanship and ingeniously constructed, but for the smallness of the work it performs it is too expensive and too complicated a machine, and will never meet a ready sale in the Indian market; moreover, the parts which are most liable to wear away are the worm or the wood roller and the endless screw on the steel roller, which if they at any time should be broken or worn out, could not, in my opinion, be replaced by workmen of this part of the country, and the machine would then become quite useless."

12. In submitting the above reports from Capt. Wingate and Messrs. Blount and Frost, the collector of Belgaum observed that—"2d. The conclusion arrived at seems to be, that Mr. Mather's churka is inferior to one which has lately been constructed by Mr. Frost, and that the relative working of both is far inferior to that of a seven-saw cotton-gin."

I.
Bengal and
North Western
Provinces.

Quoted in para. 2
of this Memo.

13. The collector of Dharwar also forwarded copies of the reports quoted above by Capt. Wingate and Messrs. Blount and Frost, and observed—3d. “The two machines invented by Mr. Mather, which came here from Calcutta, are exactly alike, but do not in all respects correspond with the description of Mr. F. W. Simms in his letter, forming one of the accompaniments to Mr. Secretary Goldsmid’s communication, dated 24 May 1850, No. 4249. They differ in the following particulars:—

“1st. There is no iron grid or grating below the brush-fan but a plain board; this difference is of little consequence.

“2d. The upper roller is pressed down by screws, and not by weights, as stated by Mr. Simms. These screws are objectionable, as they sometimes require adjustment, to which it would be difficult to get a common native labourer to attend.

“3d. These machines are worked by an endless-screw, although it may be inferred that there is none in that described by Mr. Simms; at the same time motion is communicated by a spur-wheel and pinion, as stated by him.

“4th. I beg to state I quite concur with Capt. Wingate and Mr. Blount in the opinion they have expressed as to the great superiority of the saw-gin used in the Southern Mahratta country over churkas of any kind, both as regards quantity of work and cheapness.”

(True extract.)

(signed) *A. Malet*, Chief Secy. to the Govt. of Bombay.

No. 16.

NOTE by *A. R. Young*, Esq., Under Secretary to the Government of India in the Home Department.

Mather’s cotton-
cleaning machine.

Mr. Mather was first engaged by the Lieutenant-governor North Western Provinces in 1847 to make up 12 of his cotton-cleaning machines.

Afterwards, at the strong recommendation of Mr. Simms, he was engaged in 1844 to construct eight sets of them, or 96 machines, for the Government of India.

For these, applications were made as follows by the several Governments, viz. 18 by Bengal, 10 by Bombay, 2 by Madras. Bengal, however, only availed itself of 16, and one was made over to the Agricultural and Horticultural Society. As there still remained a large number in store available for further demands, the other Governments (including the Government of North Western Provinces) were asked whether they required any more.

The Agra Government answered in the negative, and no reply has yet been received from Madras, from which it is to be presumed that they require no more.

The Government of Bombay, however, has just replied by forwarding extracts of a memorandum, showing the positive inferiority of these new machines to the common native churkas in use in different parts of that Presidency, both in point of usefulness and cheapness. The machines in question have been disapproved of by the Bombay authorities without exception, and Mr. Sandon, to whom some were temporarily made over for trial by the collectors of Broach, has described them to be merely a modification of a useless one which came out some years ago under the name of “Glasgow churka.”

The cost of these machines was as follows:

Mr. Mather originally stipulated to make them at the rate of 60 rupees each, that is 5,760 rupees for the whole, and shortly afterwards was authorised to construct a cattle mill, at a cost not exceeding 530 rupees, making, in the aggregate, 6,290 rupees.

The actual cost, however, may be thus stated—

	<i>Rs.</i>	<i>a.</i>	<i>p.</i>
Total amount received by Mr. Mather	6,094	8	9
Unadjusted demands against him for cast brass and iron works supplied from the Cossipore foundry	1,750	4	4
Unadjusted demands against him for stores obtained by him from the Iron Bridge Yard	101	10	9
Salary for 18 months, at <i>Rs.</i> 400 per mensem	7,200	-	-
Total	15,146	7	10

exclusive of the wear and tear of the lathes, &c. (valued at *Rs.* 2,397. 2. 4.), which were lent to him from the Cossipore foundry. The last account rendered by Mr. Mather, under date the 15th May 1850, however, showed a balance in his favour of *Rs.* 3,912. 5., but he suddenly left Calcutta without attempting to establish his claim to such balance. And in March 1851, this Government, to put an end to the matter, decided upon debiting the whole cost on account of these machines to the Government of India, and authorised the Military Board to write off the several demands existing in their books against Mr. Mather.

The number of machines remaining in store is 67, and in January 1851 the Military Board having represented that they occupied more space in the arsenal than could be conveniently

veniently spared, they were ordered to be sold off to the highest bidders by public auction; a bid of five rupees each, however, was only offered for them, and the Commissary of Ordnance at Allahabad was therefore instructed in November last, at the suggestion of the Military Board, to make inquiries whether, before disposing of them in Calcutta to such disadvantage, a higher price could not be obtained for them at Allahabad or at Mirzapore.

No answer has as yet been received from the Commissary, and here the matter now rests.

26 October 1852.

(signed) *A. R. Young*,
Under Secy. to the Govt. of India.

(No. 802.)

From *A. R. Young*, Esq., Under Secretary to the Government of India, to the Military Board.

No. 17.

Gentlemen,

I AM directed to call attention to my letter, No. 949, dated the 25th November last, regarding the cotton-cleaning machines constructed by Mr. Mather, and to request that the information therein called for may be furnished.

Home Department.

I have, &c.

(signed) *A. R. Young*,

Council Chamber, 5 November 1852.

Under Secy. to the Govt. of India.

EXTRACT from the Proceedings of the Most Noble the Governor-General of India in Council, in the Home Department, under date the 29th November 1852.

(No. 6168.)

From the Military Board to the Most Noble *James Andrew* Marquis of *Dalhousie*, K.T., Governor-General of India, in Council, Home Department.

No. 26.

My Lord,

WE do ourselves the honour to acknowledge the receipt of Government letter, Home Department, No. 802, dated 5th instant, requesting information as to the steps taken by our Board for disposing of the cotton machines constructed by Mr. Mather.

Ordnance Department.

Abstract.

2. We beg to report, that in December last we directed the Deputy Principal Commissary of Ordnance to forward two of the machines to the Allahabad magazine, and at the same time directed the Commissary of Ordnance at that station to ascertain, on their receipt, if a reasonable price could be obtained for them at Allahabad or Mirzapore.

Reports the steps taken for the disposal of the cotton-cleaning machine made by Mr. Mather.

3. We have as yet received no reply, but have again called on the Commissary of Ordnance for the information required, and also directed him to explain the cause of the delay which has occurred.

We have, &c.

(signed) *G. E. Gowan*, Brigadier.

Fort William, 18 November 1852.

R. Mactier, Lt.-Col.

EXTRACT from the Proceedings of the Most Noble the Governor-General of India in Council, in the Home Department, under date the 21st January 1853.

(No. 7301.)

From the Military Board to the Most Noble *James Andrew* Marquis of *Dalhousie*, K.T., Governor-General of India, in Council, Home Department.

No. 27.

My Lord,

IN continuation of our letter, No. 6168, of the 18th November last, reporting the steps taken by our Board for disposing of the cotton machines constructed by Mr. Mather, we do ourselves the honour to submit, for the information and orders of your Lordship in Council, the accompanying copy of documents, as per margin,* from the Commissary of Ordnance, Allahabad, Captain Geo. G. Channer, Artillery, forwarding the opinions of the Commissioners of Allahabad and Benares, and also that of the several collectors in the Benares district, on the likelihood of disposing of the cotton machines.

Ordnance Department.

Abstract.

Submits copy correspondence respecting the disposal of cotton-cleaning machine constructed by Mr. Mather, and solicits orders to be being sold by auction.

2. It

* Letter, No. 917, of the 26th Nov. 1852, from the Commissary of Ordnance, Allahabad, with annexures; letter, No. 974, of the 8th Dec. 1852, from ditto ditto, with copy of a letter, No. 69, from Commissioner of Allahabad.

I.

Bengal and
North Western
Provinces.

2. It is clear from this correspondence that there is no chance of disposing advantageously of these machines, or of introducing their use for cotton cleaning; and all measures available having now been tried for their disposal without success, we recommend their being sold by public auction to the highest bidders.

We have, &c.
(signed) *G. E. Gowan*, Brigadier.
W. Mactier, Lt.-Col.

Fort William, 29 December 1852.

(No. 917.)

From Captain *Geo. G. Channer*, Commissary of Ordnance, Allahabad, to Lieut. *J. P. Beadle*, Officiating Secretary, Military Board, Fort William.

Sir,

Allahabad Magazine Office, 26 Nov. 1852.

IN reply to your letter, No. 6168 $\frac{1}{2}$, under date the 18th instant, I have the honour to state that I have not been unmindful of the Board's orders.

2. The cotton machines reached me on the 6th of May last, and I immediately placed myself in communication with the Commissioners of the Allahabad and Benares divisions, and solicited their aid in carrying out the wishes of Government contained in letter No. 6631, dated 24th December last, a copy of which I enclosed for their information.

3. The Commissioner of Benares has favoured me with a reply, a copy of which, as per margin,* is herewith enclosed.

4. The Commissioner of Allahabad has not yet answered my letter, which is the cause of the delay of my report. I beg to state that, at his request, I sent one of the machines to his kutcherry, with the view of its being inspected by the natives coming in from the district on business there.

5. I have done all in my power to publish the merits of the machines to the native community; but I have not yet been able to persuade any one to become a purchaser.

6. I respectfully beg to suggest, that if a few of the machines were presented by Government to influential cultivators of cotton, they could practically test their merits, and introduce them favourably to the notice of others, who might thus be induced to purchase one for their own use.

7. By to-day's post I shall request the Commissioner of Allahabad, who is at present absent on his tour of inspection, to communicate to me the result of his inquiries amongst the natives, which shall be forwarded to the Board as soon as received.

(No. 42.)

From *E. A. Reade*, Esq., Commissioner 5th Division, to Captain *Geo. G. Channer*, Commissary of Ordnance, Allahabad.

Commissioner's Office, 5th or Benares Division,
15 July 1852.

Sir,

I HAVE the honour to acknowledge the receipt of your letter, dated 7th May last, No. 29, with its annexure, relating to two cotton-cleaning machines for sale at the Allahabad Magazine.

2. From the replies of the collectors in this division, dated as in the margin,† and herewith forwarded, you will see that there is no prospect of selling cleaning machines in this part of the country.

3. You will be pleased to return the enclosures when no longer required.

(No. 93.)

From the Collector of Gorruckpore to *E. A. Reade*, Esq., Commissioner, 5th Division, Benares.

Sir,

I HAVE the honour to acknowledge the receipt of your circular letter, No. 29, dated 10th instant, and, in reply, to state that there is no chance of finding a purchaser in this district for the cotton-cleaning machines alluded to; the saw-gin belonging to the quondam cotton farm here is still lying in the magistrate's málkhána.

Gorruckpore, Collector's Office,
15 May 1852.

I have, &c.
(signed) *C. Chester*,
Collector of Gorruckpore.

* No. 42, dated 18th July 1852, with copies of several enclosures.

† Gorruckpore, dated 15th May, No. 93.

Azimghur, dated 11th June, No. 178.

Jaunpore, dated 26th June, No. 218.

Mirzapore, dated 13th July, No. 207.

Benares, dated 27th May, No. 197.

Ghazee pore, dated 2d June, No. 237.

(No. 178.)

From *A. Geo. Tucker*, Esq., Officiating Collector of Azimghur, to *E. Reade*, Esq.,
Commissioner, 5th Division, Benares,

Sir,

In reply to your circular, No. 29, dated 10th ultimo, I have the honour to inform you, that proclamations have been made at all the tehsildarees, inviting persons to purchase the cotton-cleaning machines. I do not think that there is any chance of disposing of either of them in this district.

I have, &c.

Assist. Collectorship, 11 June 1852.

(signed) *Geo. Tucker*, Officg. Coll.

(No. 218.)

From *M. C. Ommaney*, Esq., Collector of Jaunpore, to *E. A. Reade*, Esq., Commissioner,
5th Division, Benares.

Sir,

I HAVE the honour to acknowledge the receipt of your circular, No. 29, dated 10th ultimo, and to state that there is no chance of the disposal of such machines in this district.

I have, &c.

Jaunpore Collectorship, 26 June 1852.

(signed) *M. C. Ommaney*,
Coll. of Jaunpore.

(No. 207.)

From *W. Roberts*, Esq., Collector, Mirzapore, to *E. A. Reade*, Esq., Commissioner,
5th Division, Benares.

Sir,

WITH reference to your circular letter, No. 29, dated 10th May last, I have the honour to inform you, that on its receipt I addressed the European merchants on the subject, but have received no answer from them; hence I conclude they do not care to take the machines for cleaning cotton.

2. Measures were also taken to make known the circumstance of such being for sale to the native merchants; but no one has come forward to purchase; they have replied that they do not clean cotton, and have therefore no necessity for the machine.

3. I do not think that there is any chance of disposing of them.

I have, &c.

Mirzapore Collectorship, 3 July 1852.

(signed) *W. Roberts*,
Collector, Mirzapore.

(No. 197.)

From *F. B. Gubbins*, Esq., Collector of Benares, to *E. A. Reade*, Esq., Commissioner
for the Benares Division, Benares.

Sir,

I HAVE the honour to acknowledge your letter, No. 29, dated 10th instant, and, in reply, to inform you, that, after making due inquiries on the subject, I see no chance of the cotton-cleaning machines mentioned in your letter being sold in this district.

I have, &c.

Benares Collectorship, 27 May 1852.

(signed) *F. B. Gubbins*,
Collector.

I.
Bengal and
North Western
Provinces.

(No. 239.)

From the Collector of Ghazee-pore to *E. A. Reade*, Esq., Commissioner, 5th Division,
Benares.

Sir,

Mis.

I HAVE the honour to inform you, that copies of your circular letter, No. 29, dated 10th ultimo, were forwarded to the merchants and planters residing in this district.

It appears from their replies that they do not require the machines. There are no means of disposing of them here, as very little cotton is grown in the district.

I have, &c.

Ghazee-pore Collectorship, 2 June 1852.

(signed) *R. Thornhill*,
Collector.

(True copies.)

(signed) Geo. G. Channer, Captain, Commissary of Ordnance.

(No. 974.)

From Captain *Geo. G. Channer*, Commissary of Ordnance, Allahabad, to Lieutenant
J. P. Beadle, Officiating Secretary to the Military Board, Fort William.

Sir, Allahabad, Magnet Office, 8 December 1852.

WITH reference to the 7th paragraph of my letter, No. 917, under date the 26th ultimo, I have the honour to annex herewith, for the information of the Military Board, a copy of a letter, No. 69, dated 6th instant, from the Commissioner of Allahabad to my address on the subject of the cotton machines therein alluded to.

(No. 69 of 1852.)

From *R. Lowther*, Esq., Commissioner, Allahabad Division, to Captain *G. G. Channer*,
Commissary of Ordnance, Allahabad.

Sir,

I HAVE the honour to acknowledge the receipt of your letter, dated the 26th ultimo, No. 918, and to inform you, that the zemindars of this district do not approve of the cotton machine, not only on the score of expense, but of the principle on which it is worked, requiring too much manual labour.

I have, &c.

Commissioner's Office, 4th Division, Allahabad,
6 December 1852.

(signed) *R. Lowther*,
Commissioner.

(True copy.)

(signed) Geo. G. Channer, Captain,
Commissary of Ordnance.

(True copies.)

(signed) *J. P. Beadle*,
Offg. Secretary Mily. Board.

(No. 25.)

No. 28.

From *A. R. Young*, Esq., Under Secretary to the Government of India, to the
Medical Board.

Gentlemen,

IN reply to your letter, No. 7301, dated the 29th ultimo, I am directed to state that the Most Noble the Governor-General in Council is pleased to authorise the cotton-cleaning machines therein referred to being sold by public auction to the highest bidder.

I have, &c.

Council Chamber, 12 January 1853.

(signed) *A. R. Young*,
Und. Secy. to the Govt. of India.

Home Depart-
ment.

EXTRACT from a Despatch from the Government of India to the Honourable the Court of Directors, in the Home Department, dated the 13th April 1850, No. 17.

15. The Government of Bengal submitted a recommendation of the Agricultural Society for the offer of a prize for the invention of an improved and efficient cotton-cleaning machine. We consented to grant a reward of 5,000 rupees to the inventor of such a machine as should not only perfectly separate the cotton wool from the seed, but should also be expeditious in its action, and simple, and comparatively cheap in its construction, so as to render it likely to come into practical use. The 1st of March 1852 has been fixed as the date for awarding the prize, and in the event of no machine being produced worthy of the prize, we have expressed our willingness to accord a smaller prize for any machine of merit in proportion as it may be pronounced more or less to have attained the object aimed at. An advertisement to this effect proposed to be published in the leading periodicals and newspapers of Great Britain, the continent of Europe and America, and throughout India, was submitted by the Agricultural Society, and approved by us.

Prize offered for an improved cotton-cleaning machine.

Home Cons.,
1 September 1849,
Nos. 3 to 5.
Home Cons.,
16 November 1849,
Nos. 13 to 16.

16. A quantity of the cotton for which the machine was required was ordered to be placed at the disposal of the Agricultural Society to be offered as samples to intending competitors for the prize.

EXTRACT from the Proceedings of the Honourable the President of the Council of India, in Council, in the Home Department, under date the 1st September 1849.

(No. 673.)

From the Under Secretary to the Government of Bengal to *W. Grey, Esq.*, Under Secretary to the Government of India, Home Department.

No. 3.

Sir,

I am directed by the Honourable the Deputy Governor of Bengal to forward, for the consideration and orders of the Government of India, the accompanying original letter from the honorary secretary to the Agricultural and Horticultural Society, dated the 15th instant, with its enclosures.

Revenue.

I have, &c.

(signed) *W. Seton Karr,*

Under Secy. to the Govt. of Bengal.

Fort William, 21 August 1849.

From *James Hume, Esq.*, Honorary Secretary, Agricultural and Horticultural Society, to *J. P. Grant, Esq.*, Secretary to the Government of Bengal.

No. 4.
(Enclosure.)

Sir,

I HAVE the honour to enclose a printed copy of a report drawn up by a committee of the Agricultural and Horticultural Society appointed to consider a proposition made to the society for offering a prize for an improved cotton-cleaning machine, unrestricted to any particular mechanical principle. This report was adopted at a general meeting of the society, held on the 9th instant, and, referring to the recommendation contained in the 3d paragraph thereof, I am directed to request you will have the goodness to bring the same to the notice of his Honor the Deputy-governor of Bengal, and to express the hope of the society, that, meeting with his Honor's concurrence, he will be pleased to submit it for the favourable consideration of the most noble the Governor-general.

2. I may remark, that the society has already awarded its gold medal, and the sum of 500 rupees, placed at its disposal by Major Jenkins, Commissioner of Assam, to Mr. J. H. Mather, civil engineer, for an improved cotton-cleaning machine, it being deemed superior to the others that were entered for competition as respects the cleaning of the cotton and the quantity turned out in a given time. Nevertheless, it is the opinion of the society that there is still much room for improvement, and that restricting machines for competition to the churka principle (such being the wish of the liberal donor of the money grant) has hitherto confined mechanical ingenuity to a very limited compass. Under these circumstances, it has been thought desirable that another prize should be offered, of such sum as

the Government may be pleased to grant, under the conditions laid down in the 4th and 5th paras. of the committee's report; and further, as above mentioned, that the machine be not restricted to any particular mechanical principle, under the impression that so long as it is a practical and useful improvement, likely to lead to beneficial results, its mechanical contrivance can be of no importance, and that any restriction in this respect is calculated rather to limit the probabilities of success, and retard the real object which it is so very desirable to attain.

Calcutta, 15 August 1849.

I have, &c.
(signed) *James Hume*,
Hon. Secy. A. & H. Society.

REPORT of the Committee to consider the proposed Prize for an Improved Cotton Cleaning Machine, unrestricted to any particular Mechanical Principle; and the Suggestion that the Society shall procure Drawings and Models of Agricultural Machines.

[The following Report was presented at a General Meeting of the Agricultural and Horticultural Society, held on the 12th July 1849, and ordered to be printed and circulated for the information of resident Members, previous to its consideration at the following General Meeting on the 9th August].

Calcutta, 24 June 1849.

YOUR committee having taken into consideration the proposition contained in Mr. H. Mornay's letter, dated the 11th December 1848, suggesting that a prize be offered by this society for an efficient cotton-cleaning machine, unrestricted to any particular mechanical principle; and also the suggestion made by Major F. Jenkins, that the society do place themselves in communication with Messrs. Ransome, of Ipswich, and obtain from them priced lists and drawings of agricultural machines, with the proposal, in addendum, that models of these machines be also obtained from the same parties, now beg to submit their report upon the above propositions, with suggestions as to the mode in which it appears to them these proposals would be most effectively and advantageously carried out.

2. With reference to the propriety of encouraging the invention of an efficient machine for divesting cotton of its seed, it is a desideratum of such high and national importance, that there could not be two opinions on the subject; and it only remained for your committee to determine the value of the prize it appears expedient to offer to any one who should succeed in contriving such an instrument, the conditions under which the prize should be submitted for public competition, and the period of time, if limited, that the reward should be declared open to be competed for.

3. It would seem that there is much difficulty in contriving a cotton-cleaning machine which shall not only be perfect in its action in divesting cotton wool of its seed, but also possessing the several qualities of expedition, simplicity, and comparative cheapness, so necessary to render it likely to come into practical use. Not only therefore is great ingenuity required in its contrivance, but doubtless much valuable time and expense would be consumed and incurred in experimental trials before a model could be produced, possessing all the practical qualities required. Your committee are therefore of opinion, that it is desirable that a high pecuniary reward be offered as a stimulus to inventors. With reference, therefore, to its great national importance, we recommend that Government be solicited to place a certain sum, such as they may deem fit, to be awarded by the society, in conjunction with their gold medal, to the successful inventor of such an implement. In making this suggestion, your committee have in view the earnest interest and liberal encouragement which Government have always taken in and afforded to the improvement of this great Indian staple, concluding that this proposition is consequently such as will be at once readily met, and cordially co-operated in by them.

4. With regard to the conditions under which the prize should be offered, this subject has had the deliberate consideration of your committee. The churka, as constructed by the natives, in its most efficient form, is of course an extremely cheap machine, and it could not reasonably be expected that a perfectly acting apparatus, however simple in principle, could be properly constructed at anything like so low a rate. The cheapness of the native instrument is counterbalanced by the extreme slowness of its action, and other numerous disadvantages; and a more expensive machine, possessing all the necessary practical qualities, would, no doubt, eventually supersede the native method, and contribute towards the important desideratum of restoring the export trade in this article. Your committee are therefore of opinion, that the cost of the machine should not be a specified condition restricting inventors competing for the prize. Indeed it appears to us that the offer should be made as free and general as possible, leaving the practical merits of the contrivances to the judgment of the society, or their committee, who would duly consider the several questions of cost, complexity, &c., relatively with the results in regard to power, speed, and action.

5. We think it should be made a condition, that the machine be successful in cleaning the ordinary short staple cotton grown in India.

6. With reference to the question as to whether the time should or should not be limited, it appears desirable that a stated period be fixed for the prize to be open to competition. Your committee therefore propose, that the 1st March 1852 be fixed as the date on which the trial of the machines sent in to the society shall take place; and that each competitor shall send a full-sized working model of his invention to the society's rooms, at the Metcalfe Hall, with a letter and description of the machine, and its mode of working, addressed to the secretary, on or before the 1st February of that year, in order that the necessary arrangements for the trial may be made. Should no successful machine be produced during that time, the society could renew the offer if necessary.

7. In case of there being only one candidate, your committee consider that, were his invention found superior to the native instrument, and that for which the society have already awarded a prize, it would yet remain to be determined whether the merits it possessed were, under all the circumstances, sufficient to warrant the conclusion that it was likely to come into practical operation, to the eventual supercession of the others, such as to entitle it to the prize. In the event of there being more than one competitor, and the prize being awarded, perhaps it might be well to award a silver medal to such unsuccessful competitors whose models showed much ingenuity and comparative success.

8. Your committee further recommend, that it should be made a condition that the society shall have the option of purchasing the machine submitted for which the first prize is awarded at the cost price of its construction.

9. It has been suggested, by a member of your committee, that it is also desirable that the society shall offer a separate prize for an efficient "cotton thrasher," adapted to free either kupa or cotton of the indigenous kinds from dirt and trash. From the inquiries we have been able to make, it appears that such a machine is much wanted, and recommend, therefore, that a silver medal and 250 rupees, being the amount of the accumulated interest on Major Jenkins' premium, be offered to the successful inventor of such an instrument. The same rules to be applied in the decision of the merits of this, as are proposed for the cotton-cleaning machine.

10. On the subject of the proposition made by Major F. Jenkins, your committee are unanimous in their opinion, that it would be both desirable to obtain from Messrs. Ransome priced lists and drawings of agricultural machines, and also to obtain models of such as are likely to be applicable to Indian cultivation. We would suggest, therefore, that the honorary secretary be requested to place himself in communication with Messrs. Ransome; first to obtain from those gentlemen the priced lists and drawings, after which the society could select such as were most desirable to get models of, to the amount the society could afford for this purpose, and then forward an order for their manufacture.

11. It would also be desirable that the society should possess full-sized working models of all the cotton-cleaning machines known in practical use, including Mr. Mather's churka.

(signed) *Hy. Mornay.*
Wm. Saye, Lieut.-col.
J. H. Mather, Civil Engineer.
J. M. Vos, Civil Architect and Engineer.
T. F. Henley.

(No. 500.)

From *W. Grey, Esq.,* Under Secretary to the Government of India, to *W. Seton Karr, Esq.,*
Under Secretary to the Government of Bengal.

No. 5.

Sir,

I AM directed to acknowledge the receipt of your letter (No. 673), dated the 21st ultimo, submitting a letter from the secretary of the Agricultural and Horticultural Society, containing the report of a committee appointed by the society, for the purpose of considering the expediency of offering a prize for an efficient cotton-cleaning machine, unrestricted to any particular mechanical principle. Home Department.

2. On the recommendation of this committee, the society now solicit the Government to place a certain sum at their disposal, to be awarded by the society to the successful inventor of an improved and efficient machine.

3. I am directed to state, that the President in Council is willing so far to meet the wishes of the society as to consent that a reward of 5,000 rupees shall be announced to be given, on the 1st of March 1852, to the inventor of an improved cotton-cleaning machine, such as, in the opinion of the Government, shall perfectly attain the principal objects in view, as described in the 3d paragraph of the report rendered by the society's committee.

I.
Bengal and
North Western
Provinces.

4. His Honor in Council would wish that the machines submitted by competitors for this prize should, in the first instance, be examined and reported on by a committee appointed by the society; but the Government will also nominate such persons as they may see fit to examine the machines submitted to competitors, and the report of the society's committee must be forwarded to Government, with whom alone will rest the ultimate decision in the matter.

5. I am desired to add, however, that in case of no machine being adjudged worthy of the prize offered, the President in Council will be ready to accord a smaller prize for any machine of merit, in proportion as such machine may be pronounced more or less to have attained the objects aimed at.

I have, &c.

Fort William, 1 September 1849.

(signed) *W. Grey*,
Under Secy. to the Govt. of India.

No. 12. EXTRACT from the Proceedings of the Honourable the President of the Council of India in Council, in the Home Department, under date the 16th November 1849.

(No. 954.)

Revenue. From the Under Secretary to the Government of Bengal to *W. Grey*, Esq., Under Secretary to the Government of India, Home Department.

Sir,

WITH reference to your letter, No. 500, of the 1st September last, I am directed by the Honourable the Deputy Governor to forward the accompanying original letter from the secretary to the Agricultural and Horticultural Society, dated the 31st ultimo, with a copy of the advertisement which the society propose, with the approval of the Government of India, to publish regarding the prize offered for an improved cotton-cleaning machine.

2. The society also wish to be furnished with a portion of the Banda cotton procured for Mr. Mather from the North Western Provinces, should any be available for distribution.

3. With your reply the return of the original documents is requested.

I have, &c.

Fort William,
8 November 1849.

(signed) *W. Seton Karr*,
Under Secretary to the Government of Bengal.

No. 14.
(Enclosure.)

From *James Hume*, Esq., Honorary Secretary Agricultural and Horticultural Society, to *W. Seton Karr*, Esq., Under Secretary to the Government of Bengal.

Sir,

I AM directed by the Agricultural and Horticultural Society to acknowledge the receipt of your letter, No. 799, dated the 20th ultimo, forwarding copy of a communication, No. 500, from the Under Secretary to the Government of India, Home Department, of the 1st ultimo, and in reply to convey the best acknowledgments of the society for the handsome prize of 5,000 rupees offered by the President in Council, on the application of the society, to the successful inventor of an improved and efficient machine for divesting cotton of its seed, subject to the terms notified in Mr. Under Secretary Grey's communication.

2. I am further directed to forward, in accordance with a resolution passed at a special meeting of the society, held on the 30th instant, copy of an advertisement for the approval of Government. It is proposed by the society to publish this advertisement in its present form, or any other that Government may suggest, in the leading periodicals and newspapers of Great Britain, the continent of Europe and America, and throughout India, both in the English, Bengallee, and Urdu languages.

3. In conclusion, I beg to enclose copy of another resolution passed at the same meeting, embodying an application to Government for a supply of Banda seed cotton for the purposes set forth therein.

I have, &c.

Calcutta, 31 October 1849.

(signed) *James Hume*,
Honorary Secretary A. and H. Society.

COMPETITION.—FIVE THOUSAND RUPEES REWARD.

THE Government of India, at the suggestion of the Agricultural Society of India, having announced that a reward of 5,000 rupees shall be given to the inventor of an improved cotton-cleaning machine (unrestricted by any particular mechanical principle), such as in the opinion of the Government shall perfectly attain the principal objects described by the society, namely, to be so perfect in its action in divesting cotton wool of its seed, and possessing such qualities of expedition, simplicity, and comparative cheapness, as to render it likely to come into practical use; and the Agricultural Society having determined to adjudge its gold medal for a like purpose, it is hereby notified that the following are the conditions under which the above prizes will be awarded:—

Conditions—1. The machine shall be capable of cleaning the ordinary short staple cotton grown in India.

2. Each competitor shall send a full-sized working model of his invention to the society's rooms, Metcalfe Hall, Calcutta, together with a letter descriptive of the machine and the mode of working it, addressed to the Secretary Agricultural Society of India, on or before the 1st of January 1852.

3. In the event of no machine being deemed worthy of the above-named prize of 5,000 rupees, a smaller prize will be awarded for any machine, in proportion as such may in the opinion of the Government of India be pronounced, more or less, to have attained the objects in view.

4. In the event of there being more than one competitor, and the gold medal being awarded by the Agricultural Society, its silver medal will be given to the inventor of the next best machine, provided it shows much ingenuity and comparative success.

Notice is hereby also given, that the Agricultural Society of India will be prepared to award (subject to the same conditions as those named above) its silver medal, and the sum of 250 rupees, placed at its disposal by Major Jenkins, agent to the Governor-general in Assam, for an efficient cotton-thrashing machine, adapted to free either seed cotton or cotton wool of the indigenous kinds from trash.

Proposed by the Honourable Mr. Bethune; seconded by Mr. W. G. Rose:

"That application be made to Government requesting that as much of the Banda cotton which has been sent down for the use of Mr. Mather as is not needed for his experiments, be placed at the disposal of the society, for the purpose of enabling them to offer samples to intending competitors for the prize, in accordance with the terms of the resolution, of which notice was last given."

The following is the notice in question:—

Notice of Motion.—Moved by the Honourable Mr. Bethune:

"That the society incur the necessary expense for sending about five cwt. of seed cotton to its agents, Messrs. Grindlay & Co., for the purpose of offering samples to intending competitors, at such price as may be sufficient to cover the prime cost and expense of transmission."

(No. 666.)

From *W. Grey*, Esq., Under Secretary to the Government of India, to *W. Seton Karr*, Esq.,
Under Secretary to the Government of Bengal.

No. 15.

Sir,

IN reply to your letter, No. 954, dated the 8th instant, I am directed to state that the President in Council approves of the advertisement which the Agricultural and Horticultural Society propose to publish regarding the prize to be offered for an improved cotton-cleaning machine.

Home Department.

2. With reference to your second request, I am directed to say that Mr. Mather will be requested to make over to the society any portion of the Banda seed cotton which he may not require for his own experiments.

The original enclosures of your letter are herewith returned.

I have, &c.
(signed) *W. Grey*,

Under Secretary to the Government of India.

Fort William,
16 November 1849.

(No. 663.)

No. 16. From *W. Grey*, Esq., Under Secretary to the Government of India, to *J. H. Mather*, Esq.

Sir,

Home Department. THE Agricultural and Horticultural Society having applied for a supply of Banda seed cotton of the description procured for you from the North Western Provinces, I am directed to request that you will be good enough to make over to that society any portion of the cotton which you may not require.

I have, &c.

(signed) *W. Grey*,

Council Chamber,
16 November 1849.

Under Secretary to the Government of India.

EXTRACT from a Despatch from the Government of India to the Honourable the Court of Directors, in the Home Department, dated the 27th September 1853, No. 65.

Cotton-cleaning machines sent in to compete for the prize offered in 1849.

Home Cons., 29th April 1853, Nos. 1 to 4; 27th May 1853, No. 34.

Pub. Let., No. 17, dated 23d April 1850, p. 15; No. 25, dated 10th Sept. 1851, p. 46.

19. Your Honourable Court are aware that in September 1849, at the recommendation of the Agri-Horticultural Society, the Government of India consented to give a premium of 5,000 rupees for an improved cotton-cleaning machine, such as, in the opinion of the Government, shall have fully attained the principal objects described by the society; viz., perfection in its action in separating cotton wools from the seed, and possession of such qualities of expedition, simplicity, and comparative cheapness, as would render it likely to come into practical use.

20. Four machines were sent in to compete for the prize :

1. Made by Messrs. Bates, Hyde & Co., of Massachusetts (a saw-gin).
2. Made by Messrs. Carver & Co., of Massachusetts (a saw-gin).
3. Made by Mr. Frost, engineer of the Government cotton works at Dharwar (a saw-gin).
4. Made by Mr. Mornay, of Calcutta (a machine on the churka principle).

21. A special committee was appointed by the society to examine into the merits and capabilities of these machines. The result of the experiments with the two first was considered satisfactory, and as their merits were equally balanced, the reward of 5,000 rupees has been divided between the manufacturers, Messrs. Bates, Hyde & Co. and Messrs Carver & Co., of Massachusetts.

22. Both these machines, however, as well as the one manufactured by Mr. Frost, were considered by the committee as by far too expensive to come into practical use among the ryots of Bengal; and the committee were of opinion, that no machine made of wood or iron, either upon the churka or saw-gin principle, could be produced with any pretension to good workmanship at a cost which could be afforded by a common ryot. To adopt any improved method of separating cotton from the seed, the committee thought it would be necessary to establish, in central positions, cleaning machinery on a sufficiently extensive scale to meet the wants of the cotton-growing districts. Such machinery to be turned by steam or other power, and placed under competent management.

23. A reference was made by us to the Lieutenant-governor of the North Western Provinces with a view to ascertain whether these machines could be beneficially

beneficially employed at Mirzapore or elsewhere by the Government as an experiment; but his Honour stated, that he had no facilities, either at Agra or Mirzapore, for putting them to the test of experiment, as since the death of Mr. Hamilton Bell in 1851, no one had come forward at Agra to maintain the efforts for the improvement of the cotton staple which that gentleman had prosecuted with so much zeal.

I.
Bengal and
North Western
Provinces.

EXTRACT from the Proceedings of the Most Noble the Governor-General of India in Council, in the Home Department, under date 29 April 1853.

(No. 278.)

From the Officiating Under Secretary to the Government of Bengal to *E. Thomas, Esq.*, Officiating Under Secretary to the Government of India, Home Department, dated Fort William, 29 March 1853.

No. 1.

Sir,

WITH reference to Mr. Under Secretary Grey's letter, No. 500, dated the 1st of September 1849, I am directed by the Most Noble the Governor of Bengal to forward the accompanying copy of a report from the Agricultural and Horticultural Society on the working of the cotton-cleaning machines which were submitted to competition for the prize of 5,000 rupees, offered by the Government of India.

Revenue.

I have, &c.
(signed) *W. G. Young*,
Offg. Under Secy. to the Govt. of Bengal.

From *A. H. Blechynden*, Esquire, Secretary Agricultural and Horticultural Society, to *J. P. Grant*, Esquire, Secretary to the Government of India, Home Department. No. 2, Enclosure.

Sir,

I AM directed by the Agricultural and Horticultural Society to forward, for the information of the Government of India, copy of a report by the special committee appointed by the society to examine into the merits and capabilities of the cotton-cleaning machines, which have been sent in to compete for the prize of 5,000 rupees, offered by the Government of India through the society, as communicated in Mr. Under Secretary Grey's letter, dated the 1st September 1849.

I have further the honour to submit specimens of the three kinds of cotton and seed referred to in paragraph 15 of the committee's report, as having been cleaned by the machines in question. (See list annexed, 30 specimens in all.)

I have, &c.
(signed) *A. H. Blechynden*,
Secy. A. & H. Society.

Metcalfe Hall, Calcutta,
16 March 1853.

LIST of Specimens of Cotton and Seed passed through the Machines submitted for Competition.

Mr. Frost's Machine:

- A 1. Madras cotton divested of seed.
- A 2. Seed of Madras cotton.
- A 3. Seed of Madras cotton as taken out of the hopper.
- B 1. Assam cotton divested of seed.
- B 2. Seed of Assam cotton.
- B 3. Seed of Assam cotton as taken out of the hopper.
- C 1. Bombay cotton divested of seed.
- C 2. Seed of Bombay cotton.
- C 3. Seed of Bombay cotton as taken out of the hopper.

I.
Bengal and
North Western
Provinces.

Messrs. *Bates, Hyde & Co.*'s Machine;

- D 1. Madras cotton divested of seed.
- D 2. Seed of Madras cotton.
- D 3. Seed of Madras cotton as taken out of the hopper.
- E 1. Assam cotton divested of seed.
- E 2. Seed of Assam cotton.
- F 1. Bombay cotton divested of seed.
- F 2. Seed of Bombay cotton.
- F 3. Seed of Bombay cotton as taken out of the hopper.

Messrs. *Carver & Co.*'s Machine :

- G 1. Madras cotton divested of seed.
- G 2. Seed of Madras cotton.
- G 3. Seed of Madras cotton as taken out of the hopper.
- H 1. Assam cotton divested of seed.
- H 2. Seed of Assam cotton.
- H 3. Seed of Assam cotton as taken out of the hopper.
- I 1. Bombay cotton divested of seed.
- I 2. Seed of Bombay cotton.
- I 3. Seed of Bombay cotton as taken out of the hopper.

Mr. *Mornay*'s Machine :

- K 1. Madras cotton divested of seed.
- K 2. Seed of Madras cotton.
- L 1. Bombay cotton divested of seed.
- L 2. Seed of Bombay cotton.

REPORT of the Special Committee appointed at the General Meeting of the Society on the 12th of June 1852, to examine into the merits and capabilities of the Cotton-Cleaning Machines sent in to compete for the Government Prize of 5,000 rupees, and the Society's gold medal.*

1. YOUR committee assembled at the society's rooms, Metcalfe Hall, on the 17th of June 1852, and proceeded to elect a chairman and secretary.

2. The advertised conditions under which this competition was to be met were most carefully considered, and it was concluded to republish the same in this stage of the report.

"The Government of India having at the suggestion of the Agricultural and Horticultural Society of India, announced that a prize of 5,000 rupees shall be given for an improved cotton-cleaning machine (unrestricted by any particular mechanical principle) such as in the opinion of the Government shall have fully attained the principal objects described by the society, namely, to be so perfect in its action in separating cotton wools from the seed, and possessing such qualities of expedition, simplicity, and comparative cheapness, as to render it likely to come into practical use." And the Agricultural and Horticultural Society having determined to adjudge its gold medal for the same object, it is hereby notified that the following are the conditions under which the above and other prizes will be awarded.

CONDITIONS.

1st. The machine shall be capable of separating the ordinary short-staple cotton grown in India from the seed.

2d. Each competitor shall deposit, free of charge, a full-sized working machine in the society's rooms, Metcalfe Hall, Calcutta, together with a letter descriptive of the machine, and the mode of working it, addressed to the honorary secretary of the Agricultural and Horticultural Society of India, on or before the 1st of January 1852.

3d. In the event of no machine being deemed worthy of the full amount of 5,000 rupees, a smaller prize will be awarded for the best machine offered, in proportion to its merits, in the estimation of the Government of India.

4th. The

* Extract from the Proceedings of 12th June 1853 :—On the recommendation of the Council, the following gentlemen were appointed a special committee to examine and report on the cotton-cleaning machines which have been sent in to compete for the Government prize of 5,000 rupees—Messrs. W. Haworth, T. F. Henley, W. Munro, F. G. Siddons, John Thompson, J. Ward, and J. M. Vos.—N.B. Mr. Munro returned to England before the committee commenced their experiments.

4th. The society's gold medal will be given with the Government prize of 5,000 rupees, and in the event of there being more than one competitor, a silver medal will be awarded or the next best machine, provided it shows much ingenuity and comparative success.

3. The most desirable mode of determining the merits of the several machines, and the plan of their arrangement, as well as the extent of the experiments to which they should be subjected, was settled.

4. It was concluded that the former reports of your several committees appointed to consider this important subject should be circulated amongst the members of the committee, and by them duly considered, with the view of acquainting themselves with the progress hitherto made towards attaining the desirable object of the society; viz., a simple, perfect, and comparatively cheap cotton-separating machine adapted to the wants of India.

5. At the first meeting of your committee, they felt some doubt whether the testing of the machines could be fairly conducted at that season of the year, the rains having set in. The kupas collected for experimenting on was ascertained to be very damp, so much so, that on a preliminary trial being made on each machine, it was found to be useless to proceed with the experiments, as no adequate means of drying the cotton were available. They were consequently compelled to postpone further trials until after the rains, when the kupas could be sufficiently dried by exposure to solar heat. This circumstance the committee trust may be received as their excuse for the long delay which has taken place since their appointment before their report could be prepared.

6. The society having provided for these trials, a considerable quantity of each of the following kind of cotton kupas, viz., Bombay, Madras, and Assam, your committee resolved to test each machine with a sufficient quantity of the three sorts of kupas as would, in their opinion, show their respective merits and capabilities in separating the cotton from the seed, and in producing the most marketable article at the least expense.

7. The condition of each kind of kupas was carefully examined; the Bombay and Madras sorts are believed to be such as produce the cotton generally exported from those ports in large quantity, both as regard colour, staple, and cleanliness, and they appeared to be fair samples of native-grown cotton. Of the Assam kupas, your committee can only report, that it appears to be a description of cotton very little known in Calcutta, nor does it appear to have been exported from the country at all; the kupas experimented on is said to be of the best kind produced in that district, the colour being fair, but the staple is very short, the fibre harsh and coarse, not unlike some kinds of sheep's wool; the seed is small, and very rough; the wool adhering most tenaciously to it, making it difficult for any machine to separate effectually the cotton from the seed.

8. The machines sent in for competition were four in number, by the following makers; viz., Mr. Frost, engineer of the Government cotton works at Dharwar, Bombay (a saw-gin); Messrs. Bates, Hyde & Co., of Massachusetts, United States of America (a saw-gin); Messrs. Carver & Co., of Massachusetts, United States (also a saw-gin); Mr. Mornay, secretary of the Assam Company, Calcutta, a machine on the churka principle.

9. Mr. Frost's machine has seven saws of 10 inches diameter, placed at $\frac{9}{10}$ inches (eight-tenths of an inch) apart, and intended to be worked by manual labour. Mr. Frost states, that he had made about 70 such gins up to October, 1851, but not quite equal in point of workmanship to the one sent to compete for the prize, his price for which is 65 rupees. He states that the machine is capable of cleaning $31\frac{1}{2}$ pounds of kupas in 28 minutes, the power employed being two men turning, and one boy feeding. This is about equal to 33 seers 750 per hour. It is not said what description of cotton was used in this experiment.

10. Messrs. Bates, Hyde & Co.'s machine has 15 saws of $12\frac{3}{4}$ inches diameter, placed at six-tenths of an inch apart, and is intended also to be worked by manual labour, the makers accompany it with the following remarks:—

“The seed may be ginned more or less clean of the fibre, as may be thought most desirable, it being questionable whether, as a matter of economy, the shorter fibres which remain upon the seeds would add to the value of the cotton. The fibre of the East Indian cotton sent for trial is about half the length of the ordinary upland cotton grown in the South-western States, and the seeds are about half the size, and more nearly round, hard, and plump.

“The cotton grown in Mississippi or Louisiana is more full of trash, leaf, and dirt, than the East Indian cotton.

“An ordinary sized eagle gin, turned by hand, having 15 to 18 saws, will turn out from 200 to 300 lbs. of clean cotton per day, if properly attended (300 lbs. per 12 hours, gives 25 lbs. cleaned cotton per hour.) A gin of 50 saws (turned by power) will give from 200 lbs. to 225 lbs. of clean cotton per hour. Our rule is, for a gin working to the best advantage, in our Southern States, one bale of cotton of 450 lbs. per day to every ten saws, say, for a

I.
Bengal and
North Western
Provinces.

50 saw-gin, five bales per day; a 60 saw-gin, six bales in 12 hours. The power required is three horses or mules, of average size and strength, or a similar amount when steam or water power is used to 50 saws."

The prices of the eagle cotton saw-gins, such as the one sent for competition (15 saws) is \$70 (seventy dollars) in Boston.

11. Messrs. Carver & Co.'s machine has 50 saws of ten inches diameter; the saws are placed at six-tenths of an inch apart, and is not intended to be worked by manual labour. This machine is too large to be fairly tested by any means within the reach of your committee for applying sufficient power to obtain the speed required, but the makers state its capabilities to be as follows:—

"Whilst at work upon the East Indian cotton sent for trial, the machine was turned by water power, and that it may be driven equally as well by steam, horse, mules, or oxen; the saws had 300 revolutions per minute, and it ginned at the rate of 75 lbs. of cleaned cotton per hour. A higher speed than 300 revolutions may be used without danger or injury to the machine or cotton, and the quantity got through will be increased in nearly the same proportions." The makers also state, that the gins which they usually make for American use have from 70 to 100 saws in each.

Messrs. Carver & Co. have not stated the price of this machine, but judging from the cost of the smaller one of Messrs. Bates, Hyde & Co.'s, it may, your committee think, be assumed at about 200 dollars.

12. Mr. Mornay's machine is constructed on the native churka principle. It has two sets of rollers placed one over the other, each pair has a steel upper roller of $\frac{7}{16}$ of an inch in diameter, and a hard wood roller below of $\frac{15}{16}$ inch diameter; that portion of the rollers to which the kupas is applied is about five inches long. The machine has two cast-iron side frames, which support the rollers and driving apparatus; the joinnals of each set of rollers work in gun-metal bearings, inserted in shots in the side frames; these bearings merely act as guides, the whole strain being received upon a combination of friction wheels placed inside the framing, and of as great a diameter as the space in which they work will admit of. The great novelty of this machine is a self acting apparatus, consisting of a table or grate in front of the rollers, formed of rods of iron, a space being left between each; the kupas is placed on this grating by hand, and is very evenly spread over its surface, requiring considerable dexterity and constant attention on the part of the person in attendance to keep the rollers supplied with cotton. Beneath the grate is a flat table surface, studied with prongs, forming combs, the ends of which, actuated by a crank, come up through the bars at each revolution, causing the points of the comb to push forward the cotton against the rollers.

Mr. Mornay states, that he considers this machine worked by hand as only a typical illustration of the principle on which he proposes that a number of such should be worked in combination, to be driven by steam or other power. He estimates the quantity of cotton it can turn out clean at 3 lbs. per hour, if proper attention is paid to the feeding; he is not able to give the cost of the machine submitted for competition, but he thinks machines constructed in England, on a larger scale, might be made at a cost of 15 rupees per roller. It is well to remark here, that the kupas intended to be cleaned by this machine requires first to be well opened out, and on a large scale; a separate machine for this purpose must be employed, and no such machine has as yet, that your committee are aware of, been invented.

13. Before proceeding to trial of the several machines, the kupas intended to be acted upon had all been slightly hand-picked, as is usual, to separate, as well as could be, the trash, leaves, and stained cotton.

14. The result of nine experiments, being three for each machine, on the saw-gin principle, and the details of each trial of the several machines, are set forth in the following tabular statement, and at the foot thereof is added the particulars of two extra trials of half an hour duration each, on the two American saw-gins.

I.
Bengal and
North Western
Provinces.

15.—TABLE OF EXPERIMENTS.

N A M E of M A C H I N E.	D I A M E T E R of S A W S.	Revolutions of Saw Cylinders per Minute.	Experiments.	Description of Cotton.	Quantity of Kupas Experimented on.	Time consumed in Experiments.	Clean Cotton Produced.	Seeds Obtained.	Less or Wastage.	Work done per Hour in Kupas.	Work done per Hour in Clean Cotton.	Number of Feet of Saw-teeth engaged in producing a Ser of Clean Cotton.
Mr. Frost's, Engineer Gov- ernment Cotton Works at Dharwar.	- - Seven Saws, 10 inches diameter, or say 31'4. circumference - - -	325	First	Madras -	4 seers -	min. sec. 13 0	seers. ch. 0 15'725	seers. ch. 2 15'925	ch. dec. 0'350	seers dec. 18'461	seers. dec. 4'536	76,298
			Second	Assam -	1 " -	5 45	0 5'750	0 10'175	0'750	10'435	3'750	
			Third	Bombay	1 " -	2 40	0 5'250	0 10'750	0'000	22'500	7'383	
			TOTAL	-	6 " -	21 25	1 10'725	4 4'850	1'100	16'809	4'679	
Messrs. Bates, Hyde & Co., of Massachusetts, United States of America.	- - 15 Saws, 12½ inches diameter, or say 40 inches in circumference - - -	140	First	Madras -	4 seers -	11 20	1 0'500	2 15'500	0'000	21'176	5'459	78,093
			Second	Assam -	2 " -	10 30	0 11'750	1 4'000	0'250	11'438	4'196	
			Third	Bombay	2 " -	5 10	0 10'500	1 5'250	0'250	23'226	7'621	
			TOTAL	-	8 " -	27 0	2 6'750	5 8'750	0'500	17'778	5'382	
Messrs. Carver & Co, of Massachusetts, United States of America.	- - 50 Saws, 10 inches diameter, or say 31'4. cir- cumference - - -	180	First	Madras -	8 seers -	7 20	2 0'125	5 15'250	0'925	65'454	16'427	107,354
			Second	Assam -	4 " -	9 30	1 6'000	2 9'500	0'500	25'268	8'684	
			Third	Bombay	4 " -	4 30	1 4'750	2 11'250	0 000	53'333	17'292	
			TOTAL	-	16 " -	21 20	4 10'875	11 3'000	1'425	45'000	13'162	

Memorandum.—Carver & Co.'s machine working for half an hour, four men at the wheel, who were relieved every five minutes.

Clean cotton turned out	-	-	-	-	-	5 12
Clean seed turned out	-	-	-	-	-	10 0 - - seers 15. 12.
Bates, Hyde & Co.'s machine for half an hour, two men at wheel, relieved as above.						
Clean cotton turned out	-	-	-	-	-	2 0
Clean seed turned out	-	-	-	-	-	3 8 - - seers 5. 8.

16. These experiments or trials occupied your committee several days; they were conducted with great care, the kupas was weighed out for each trial, and after the cotton had passed through, the cleaned portion, as well as the seed and motes, were again weighed separately, the particulars carefully noted; and your committee consider that they have now merely to append such remarks as were suggested by the circumstances attending each trial, first considering it their duty to record their unanimous opinion that such trials as these, limited as to the means at the disposal of your committee for the purpose, can only be taken as an approximation of the capabilities and merits of each machine. The manual labour used was coolies, brought from the streets, none of whom had probably ever before been employed in turning a machine of any kind; they were soon fatigued with the work. The machines were fed with kupas by members of the committee, and to them it was evident that a longer experience of that duty would have enabled them to pass through much more cotton had the machines been worked at the uniform speed recommended by their several makers; further, it requires a much more intimate acquaintance with the peculiar merits and arrangements of the machines, before a correct knowledge could be had of how to adjust the working parts to obtain the best result for the particular kind of cotton upon which they were to be tried, and some change in the adjustment of some of the parts is required, and means are provided for that purpose, so as to accommodate long or short staple cotton, or to keep the cotton longer or shorter time under operation, as may be found most desirable.

17. "Carver's" machine being on a large scale, and having no less than 50 saws, would require (as stated by the makers) steam or other power than manual labour to turn it, but as your committee had none other available, the amount of work performed by that machine during the trial falls far short of the estimate of the makers, yet they had every reason to believe that, had it been run at its proper speed, the estimated quantity of work it is capable of doing, as stated by the makers, would have been attained. The workmanship bestowed on the getting up of this machine is of the best kind, the arrangement of its various details is very simple, and altogether it appears a very desirable machine to be used on a central establishment for cleaning kupas in a cotton-growing district. The cleaned cotton from this machine, in each of the three trials, had no appearance of being cut or in any way injured by the cutting action of the saws; the staple seemed quite as long, on careful examination, as that picked from the kupas by hand; the cotton was, in every instance, clean, unmixed with cut seeds or motes; the seed was well freed of all useful fibre. The experiment on Assam kupas may be considered as severe a test as the machine could be subjected to, yet the result was as satisfactory as regards the perfect separation of the cotton from the seed, as in the other trials.

18. Bates, Hyde & Co.'s gin was worked by two men, who were relieved every five minutes; the labour was severe, and this, as well as "Carver's" gin, is more adapted to be worked by steam-power than by manual labour. This machine is very compact and strong, simple in its details, and of good workmanship. Its performance during the trials on the three kinds of kupas was quite as satisfactory as that of Carver's gin; the cotton and seed were in each case as clean, the fibre did not appear cut. Your committee are however of opinion, that this gin, like the previous one, is far too large to be used as a "cottage gin," and could be worked to advantage only when put down in a central situation of a cotton-growing district, along with a number of such like machines to be turned by steam or other more convenient power, in which case it would be better if prepared with 50 to 70 saws, as is usual in America; it would then be a most complete and a very desirable machine for the purpose.

19. Mr. Frost's machine performed its work tolerably well, but the cotton from it was not quite so well cleaned as that from the American machines, and more cotton was left upon the seed. It appears, however, by reference to the right-hand column of the Table, that it did more work in proportion to the number of feet of saw-teeth engaged in cleaning a given quantity of cotton than in any of the other gins. This apparent advantage was most probably due to the small number of saws in this gin, which enabled the two men to drive it at full speed, causing less slip to the teeth through the cotton than in the larger gins. It is probable, too, that the saws being farther apart than in the American gins, each row of teeth would take up a larger quantity of cotton, although to the deterioration of the quality of the work performed. Indeed, in all the saw-gins brought forward for competition upon the present occasion, and in a number of others now standing in the Society's rooms, and which have at various times been unsuccessfully tried for cleaning the cotton of this country, the arrangement is very nearly the same, the principal difference being in the hook of the saw-teeth and in the distance between the saws, and your committee are of opinion that very little alteration would be required to make any one of these machines do the work in the same efficient manner as the American gins now competing. In saying this, your committee are far from wishing to detract in the least from the merit of the parties who have so successfully employed their talents in adapting the saw-gin to the wants of the country. The alterations which have been effected, however small they may be in appearance, constitute the difference between a useless machine and an efficient one.

20. Mr. Mornay's churka was likewise tested on the three kinds of cotton; the following Table shows the result:

Bombay Kupas, ten Tolas or one-eighth of a Seer cleaned in $2\frac{1}{2}$ minutes.			
Clean cotton	-	-	3 tolas.
		Seed	-
			7 tolas.
			10 tolas.

Madras Kupas, ten Tolas or one-eighth of a Seer cleaned in 2 minutes 45 seconds.

Cleaned cotton	-	-	-	2	4		Seed	-	-	-	7	12
												10 tolas.

Assam Kupas - - - - 10 tolas.

N.B.—An attempt to clean the above description of cotton failed *in toto*.

It should be mentioned that the above three kinds of kupas were well opened out with the hand before they were placed on the feeder, and moreover that the wheel was turned by two members of the committee working alternately. The other machines were worked by coolies, and the kupas thrown promiscuously into the hopper.

The trials were very limited as to quantity in consequence of the cotton requiring to be so well opened out by hand before it is put to the machine, and which is not necessary to be done for the saw-gins; the great nicety and attention required to be paid to the feeding of this machine is more than could be expected from any native, and in the absence of such close attention, the quantity got through would be very much reduced. The Madras and Bombay cotton was turned out quite clean and the staple uninjured, but the machine entirely failed in the trial on Assam kupas; the rollers could not lay hold of the short staple. This machine would be far too costly and complicated to be used as a "cottage churka" amongst the ryots. Mr. Mornay does not appear to have intended it for that purpose, but as a model of a larger machine, to be used in a central cleaning establishment. It was, however, very apparent to your committee, that to adapt it for the latter purpose, it would require its parts to be differently arranged, and much simplified; some additions would also require to be made to the feeding apparatus to ensure regularity of action. Your committee do not consider there was sufficient in the model before them to enable them to form an opinion, whether the machine could be so arranged on the large scale, suggested by Mr. Mornay, to work with precision and economy; a separate machine would be required to open out the cotton before it could be put to this churka; and your committee are not aware of any such machine being at present in use, or even invented.

21. In conclusion, your committee beg to state, that they find much difficulty in awarding to either of the American machines a degree of merit over the other. They, as well as Mr. Frost's machine, are by far too expensive to be used by the ryots as cottage machines, and your committee would take this opportunity of expressing their opinion, that no machine made of wood or iron, either upon the churka or saw-gin principle, can be produced with any pretension to good workmanship at a cost which could be afforded by a common ryot, and that to adopt any improved method of separating cotton from the seed-cleaning machinery, on a sufficiently extensive scale, must be established in central positions, so as to meet the wants of the cotton-growing districts; such machinery to be turned by steam or other power, and placed under competent management. The gin sent out by Messrs. Carver & Co., in its present state is the most complete, and best adapted for that purpose, and next to this Messrs. Bates, Hyde & Co.'s gin. At the same time it is only just to the latter gentlemen to observe, that had the Government advertisement stated that a machine adapted for a central establishment was the one wanted, their gin required nothing more than an addition of saws to make it equal to Messrs. Carver's machine. The committee would add also, that there is sufficient evidence in the arrangement and workmanship of Mr. Frost's machine to show them that there would be little difficulty in constructing a saw-gin on a large scale, and well suited in every respect to clean the short staple cotton of India, and that such machines might be made in many of the Government or private workshops in this country. Your committee would add, that they consider such machines very desirable, and if arrangements could be made to have them put down in convenient central situations in the cotton-growing districts, they would produce cotton of very superior degree of cleanliness, and in every respect (except length of staple) better suited to the wants of the home manufactures than that sent forward in the present day. At the same time your committee beg respectfully to submit that, in their opinion, an improved quality of cotton, such as would compete with that imported into England from the American States, can only be attained in this country by holding out every reasonable inducement to the native growers to pay more attention to the cultivation, and by introducing to their notice a better description of seed. A remission of all, or a fair portion of the land assessment to such growers as produced an article equal to a fixed standard would be a great inducement to the natives to attempt the attainment of so desirable an object, and when once gained, the increased demand and enhanced price of such cotton would very soon bring into cultivation large tracts of land which are at present productive of little revenue to the state, and thus in time make up to the Government any temporary loss by the remissions made in the first years of gradual improvement.

(signed) *W. Haworth.* *John Ward.* *F. G. Siddons.*
Calcutta, February 1853. *John Thomson.* *J. M. Vos.* *T. F. Henley.*

(True copy.)

(signed) *A. H. Blechynden,*
Secy. A. & H. Society.

(True copy.)

(signed) *W. G. Young,*
Offg. Under Secy. to the Govt. of Bengal.

I.
Bengal and
North Western
Provinces.

I.

Bengal and
North Western
Provinces.

(No. 316.)

From *E. Thomas*, Esq., Officiating Under Secretary to the Government of India, to the
Officiating Under Secretary to Government of Bengal.

Sir,

No. 3.
Home Depart-
ment.

I AM directed to acknowledge the receipt of your letter, No. 278, of the 29th ultimo, forwarding copy of a report from the Agricultural and Horticultural Society, on the working of the several cotton-cleaning machines which were submitted to competition for the prize of 5,000 rupees, offered by the Government of India in 1849.

2. As the result of the experiments with the two machines noticed in the margin,* is considered satisfactory by the society, and their respective merits are stated to be evenly balanced, the Governor-general in Council is pleased to direct that the reward offered by the Government of India be equally divided between the two leading competitors, Messrs. Bates, Hyde & Co, and Messrs. Carver & Co., of Massachusetts.

3. A reference has been made to the Honourable the Lieutenant-governor, North Western Provinces, with a view to ascertain whether the machines in question could be beneficially employed at Mirzapore or elsewhere, by Government, as an experiment, in the manner proposed by the committee.

Council Chamber, 29 April 1853.

I have, &c.
(signed) *E. Thomas*,
Offg. Under Secy. to the Govt. of India.

(No. 335.)

No. 4.

From *E. Thomas*, Esq., Officiating Under Secretary to the Government of India, to
Secretary to Government, North Western Provinces.

Sir,

Home Depart-
ment.

I AM directed to forward, for the purpose of being laid before the Honourable the Lieutenant-governor, North Western Provinces, the accompanying copy of a letter from the Government of Bengal, No. 278, dated the 29th ultimo, enclosing copy of a report from the Agricultural and Horticultural Society on the working of the cotton-cleaning machines which were submitted to competition for the prize of 5,000 rupees offered by the Government of India in 1849.

2. The Most Noble the Governor-general in Council desires to be informed if his Honor the Lieutenant-governor is of opinion that the machines in question could be beneficially employed at Mirzapore or elsewhere, by Government, as an experiment, in the manner proposed by the committee.

Fort William, 29 April 1853.

I have, &c.
(signed) *E. Thomas*,
Offg. Under Secy. to the Govt. of India.

EXTRACT from the Proceedings of the Most Noble the Governor-General of India in
Council, in the Home Department, under date 27 May 1853.

(No. 1824 of 1853.)

No. 34.

From *W. Muir*, Esq., Secretary to the Government of the North Western Provinces, to
J. P. Grant, Esq., Secretary to the Government of India, Fort William.

Sir,

Revenue Depart-
ment.

I AM directed to acknowledge the receipt of Mr. Officiating Under Secretary Thomas's letter, No. 335, dated the 29th ultimo, forwarding a report on the working of the cotton-cleaning machines which were submitted to competition for the prize of 5,000 rupees, offered by the Government of India in 1849, and inquiring whether the machines in question could be beneficially employed at Mirzapore or elsewhere, by Government, as an experiment.

2. The Lieutenant-governor has directed me in reply to state, that he has no facilities either at Agra or Mirzapore for putting the engines to the test of experiment, as recommended by the committee. His Honor regrets to say, that since the death of Mr. Hamilton Bell in 1851, no one has come forward at Agra to maintain the efforts for the improvement of the cotton staple, which that gentleman prosecuted with vigour till his last fatal illness.

Agra, 14 May 1853.

I have, &c.
(signed) *W. Muir*,
Secy. to Govt. of the N. W. Provinces.

(No. 522.)

COPY forwarded to the Government of Bengal, with reference to para. 3 of my letter, No. 316, dated the 29th ultimo.

Home Department, 23 May 1853.

By order, &c.
(signed) *E. Thomas*,
Offg. Under Secy. to the Govt. of India.

* 1. A saw-gin made by Messrs. Bates, Hyde & Co. Massachusetts.
2. Ditto, made by Messrs. Carver & Co., of ditto.

From the Court of Directors to the Governor-General of India in Council,
dated 27 June (No. 5) 1849.

I.
Bengal and
North Western
Provinces.

WE transmit herewith a bill of lading for 24 cases, each containing two "cottage saw-gins" for cleaning cotton, which have been consigned to you on board the "Anna Henderson," from Liverpool. Shipment of cottage saw-gins.

2. We also forward to you a copy of a report on these saw-gins which has been submitted to us by Dr. Royle, and also of a memorandum prepared by Mr. James Petrie, late engineer to the cotton experimental establishment at Coimbatore. Dated 6 Oct. 1848.

3. You will cause the gins to be tried in such localities in Bengal and in the North Western Provinces as you may consider suitable, and we desire that you will inform us as soon as practicable of the degree of success that may be found to attend their operation.

4. A small number of these gins may be presented to natives as rewards for successful cotton cultivation, in cases in which it may appear to you to be desirable to distribute them gratuitously; but we think that the ryots should rather be encouraged to purchase the machines, receiving them as tuccavee advances, and paying for them by instalments. We conceive that in this way the people will be more likely to value and take care of them, and that their introduction into general use, if found suitable for the purpose for which they are intended, will be promoted.

5. The cost of the gins, exclusive of charges for freight and carriage, will be about 3*l.* each.

London, 27 June 1849.

(signed) *A. Galloway,*
J. Shepherd,
&c. &c.

Sir,

Manchester Commercial Association,
14 September 1848.

HEREWITH I have the honour to transmit a letter, addressed by the Vice-President of this Association to the Chairman of the Court of Directors of the Honourable East India Company, to which I am to request you will have the goodness to direct his attention.

James C. Melvill, Esq.,
&c. &c. &c.
India House, London.

I have, &c.
(signed) *Hugh Fleming,*
Secretary.

Manchester Commercial Association,
14 September 1848.

To Lieutenant-General Sir *James L. Lushington*, G.C.B., &c. &c., Chairman of the Court of Directors of the Honourable East India Company, London.

Sir,

In the month of April last, at the request of this association, you were so obliging as to forward to Manchester the model of a (25) saw-gin, such as is at present generally used for cleaning cotton at the Government establishments in India, and which the association applied for with a view to the construction of a gin of much smaller dimensions, believing that such a machine, by reason of its diminished cost and its greater facility of transport, would be found to be better suited to the means and requirements of the natives of India engaged in cotton cultivation, and would therefore be calculated materially to improve the condition of the cotton imported from that country, and also be a means of still further extending its cultivation.

It now affords me much pleasure to state that the association believe that after some expenditure and considerable trouble, they have succeeded in constructing a machine possessing the above advantages. It contains four saws, can be worked by one man, and will with ease clean 13·7 lbs. of seed cotton per hour; the gin of 25 saws cleaning only 10·71 lbs. per man in the same period.

Its cost made of iron, laid down in India, would be (3*l.*) three pounds, but if constructed of wood and made up in that country the expense would be much less, as in such case it would only be necessary to supply the saws from England.

I.

Bengal and
North Western
Provinces.

The association having resolved to submit the machines to a public trial, I have the honour to acquaint you that it has been arranged that a meeting of parties interested in the cotton trade shall be held for that purpose in the Town-hall here on Thursday the 28th instant, at 11 o'clock in the forenoon, his worship the Mayor of Manchester presiding, and upon which occasion the association respectfully request that your Honourable Court may be represented by deputation, in order that the real merits of the undertaking may be more fully ascertained; and should the machines in question, to which the association have given the name of "Cottage-Gins," meet general approval, the association venture to hope that your Honourable Court will use its influence and authority to promote their general introduction, believing that they supply a great desideratum towards the full success of the attempts to promote the cultivation of cotton so laudably undertaken and so perseveringly conducted on the part of the Honourable East India Company.

I have, &c.

(signed) *Malcolm Ross*, Vice-President.

J. C. Melvill, Esq., Secretary to the Court of Directors of the East India Company.

Sir,

IN conformity to the instructions intimated in the letter of the 21st September from Mr. Dickinson to the vice-president of the Commercial Association of Manchester, I proceeded last week to that town, and attended the public meeting held in the town-hall on the 28th September, at which the cottage-gins for cleaning cotton were submitted to trial. I subsequently made private examinations of the structure and working of these machines. Before describing these, I may state that I found the greatest anxiety continuing to prevail respecting the great importance of a supply of cotton being obtained from more than one country, and also that India should supply a larger proportion of the kinds from American seed than she had hitherto done.

Suitable as is the saw-gin for the cleaning of American cotton, it is often stated to be unfit for that which is the indigenous growth of India. But what is true of an instrument in one state, ceases to be so when it has been modified and improved. This is the case with the saw-gin, as applicable to the cleaning of India cotton; for the Government experiments in cleaning the native cotton with the slightly modified saw-gin, at Coimbatore, Dharwar, Broach, and in Khandeish, have proved its perfect feasibility; and this as judged of by native cotton cleaned by the saw-gin selling at a higher price than that cleaned by the churka, and also by the opinions of manufacturers who have purchased and used the cotton. But the seed cotton requires to be picked clean before being ginned, otherwise the dried leaf, bracts, &c., become ground up into fragments, and these stick to the cotton in every subsequent process of its manufacture. It is unnecessary, also, to dilate on the objections which have been made to the saw-gin, when worked by hand, as ineffective and expensive; for these objections apply to the imperfect instrument moved by cog-wheels originally sent from this country. When bands and a fly-wheel were applied in India to work the instrument, it was found to be so greatly improved as to be both easily and profitably worked. It may be sufficient to state, that the Commercial Association of Manchester, who, in their president's letter of the 5th February 1847 to the chairman of the Court of Directors of the East India Company, and writing of saw-gins, "advise that none of these machines should be hand-gins," is the very body which has caused these cottage-gins to be prepared, as most suitable to the growers of cotton, and especially of American cotton, in India.

In April last I was applied to by the secretary of the above association to know whether they could be favoured with the loan, from the India House, of a saw-gin, as they wished to construct a smaller one for the use of the natives of India. As no saw-gin had been retained, either of those brought from America or of those made here, I sent, as I intimated to you at the time, a model of the saw-gin which had been made by Mr. Frost, the engineer, now employed in the district of Dharwar. I also recommended the association to consult Mr. Petrie, the engineer, who had then lately returned from Coimbatore, as one well acquainted with the practical working of the saw-gin, and who would be able to direct attention to such points as would ensure the efficient working of the instrument. Mr. Petrie was sent for by the association in the month of July, when he "carefully examined and subjected to trial the two small gins fitted up under the auspices of the association for cottage use in India."

The first trials were not very satisfactory, from a wrong construction of the bars, which impeded the free action of the cotton-roll, and a deficiency of curve in the bars, which made the machine work unsteadily. He suggested the construction of new and stronger bars, and with more curve than the first ones, or than those of the model. After these alterations he found the working of the gins highly satisfactory, and reported most favourably of the success which attended the final experiments.

The association have had altogether four of the cottage-gins constructed, each containing only four saws, each differing from the other either in the material used in their construction, or in the mode by which motion is communicated to the saws and brushes. Each gin contains only four saws of the kind which Mr. Petrie had, after careful experiment, found most useful when in India.

- No. 1. A saw-gin of four saws, constructed chiefly of wood, and moved by bands and wheels.
 No. 2. Ditto - - ditto - - ditto - - of iron, and similarly moved.
 No. 3. Ditto - - ditto - - ditto - - ditto, and moved by cog-wheels.
 No. 4. Ditto - - ditto - - ditto - - ditto, and moved by pinion and wheel.

All are nearly equally efficient; the wooden one less so than the others, probably from the greater amount of friction; but I know not why, if the internal works are the same, it should not be as efficient as the others, especially if iron rollers were used instead of wooden ones for the bands to pass round. It is very likely to come extensively into use in India, from the facility with which it might be made there with wood seasoned to the climate. The machines worked by cog-wheels, and by the pinion and wheel, are not, I conceive, on this very account, so well suited to India, and do not offer any greater advantages than No. 2, which is constructed chiefly of iron, and moved by a band passing round three small wheels. This instrument, from its small and compact size, little weight, the ease with which it is so efficiently worked, and its comparative low price (about 3 £), is well suited to fix the attention of the native cultivator, who is readily frightened by the sight of a large and expensive instrument, which, in addition to extensive premises, necessitates the employment either of many men or cattle to put it in motion.

The cottage-gin under consideration is only 33 inches in length and 27 inches in height, with a breadth of 6½ inches, but of 16 inches, if including the handles. It may be worked by a single man or boy, in a room or temporary shed which is not more than 12 feet long by 6 feet broad. A feeding-basket, which holds about 4 lbs. of seed cotton, has been lightly fixed on the left-hand side, so that the same person may both work and feed the gin, and he would have occasional relief from his labour when replenishing the basket.

Mr. Jamieson, the mechanical engineer employed by the association, has made several improvements in each of the four machines. These improvements will, of course, be incorporated in any future instruments which he may have to make. Thus, besides the greater curves of the grates, he has made these of steel at the points, where they might come in contact with the saws.

These saws may each and all be taken off, and again replaced with great ease by almost any one; so also the brushes, being fixed by screws, may readily be taken off, and again replaced, if they should require repair, &c. The saws can also be readily adjusted by a horizontal motion, if they should by any chance be out of trim. The driving-band has also an adjusting screw, by which it may be tightened or slackened, as the case may require.

To appreciate the advantages of the cottage-gin, it is necessary to allude to the means at present adopted in India for cleaning cotton. These are the churka and foot-roller. The latter is employed only in the Southern Mahratta country. Of the churka, which is a superior instrument, there are several varieties. The Madras churka and the Guzerat churka, as well as the foot-roller, are all represented in the papers published by the Court in 1836, relating to the production of cotton wool in India. In conformity to the American practice, large 60-saw gins, moved by horse or cattle power, were established in India at Agra, at Broach, and at Coimbatore. The machines at the two latter places are still at work with bullocks; but it was early ascertained, in the Southern Mahratta country, that small gins, as, for instance, with from 18 to 25 saws, made at an expense of from 150 to 200 rupees in India, worked by two parties of five men, relieving each other alternately, were much better suited to India. Mr. Petrie, in estimating the value of the cottage-gin, considered it sufficient to compare its working with the hand-gin and the churka, as in the following Table:

	Quantity Cleaned per Man per Hour.	Price of Cleaning per Candy of 500 lbs.	Cost of Machinery on every Bale.
	Lbs.	Rs. a.	d.
Hand-gin - - - -	10·71	3 14	3 ½
Cottage-gin - - - -	13·7	3 4	3 ½
Churka - - - - -	3	5 -	- ½

Subsequent to Mr. Petrie's examination of the two cottage-gins which had then been made, considerable improvements had been effected in their construction by Mr. Jamieson, so that a greater quantity of work could be done with no greater expenditure of labour. All the four machines were set to work at the public meeting, and each cleaned 4 lbs. of seed cotton in from 12 to 15 minutes. The spinners and manufacturers who were present seemed well satisfied with the working of the machines, as well as with the manner in which the cotton had been cleaned.

The experiments in public having been made in the midst of some confusion, I expressed a wish to have them repeated in private with the two machines which I thought were upon the whole best suited to India. This was readily complied with, and the experiments were carefully repeated in my presence, accompanied by Mr. Turner, Mr. Fleming, and Mr.

I.

Bengal and
North Western
Provinces.

James Lees, who has taken the most active part in the getting up of these cottage-gins, I was happy to find that the working of both machines was even more satisfactory than had been reported by Mr. Petrie. Here I may observe, that though the gins were placed on their cases to allow the labourers to work them standing, the natives would probably prefer to work them sitting on the ground.

No. 1, on the wooden gin, cleaned 4 lbs. of kupas in four minutes, yielding 1·4 clean cotton, and 2 lbs. 12 oz. seed.

No. 2, on the iron gin, cleaned 4 lbs. of kupas in 12 minutes, yielding 1·4 clean cotton, and 2 lbs. 12 oz. seed.

that is, 31 per cent. of clean cotton was obtained from both instruments, the wooden one cleaning at the rate of 17 lbs. an hour, and the iron one 20 lbs. an hour, though Mr. Petrie found the original machine yielding only at the rate of 13·71 pounds an hour. All these experiments were made with American seed cotton, which the Commercial Association had caused to be imported, as they are themselves most anxious for the extended cultivation of American cotton in India. But Mr. Burn, the brother of Dr. Burn, late superintendent of cotton culture in Broach, and who had himself been employed in superintending the cotton-cleaning machines in that district, fortunately visited Manchester for the express purpose of seeing the cottage-gins at work, and brought with him some kupas or seed cotton from Broach. This he tried in the above iron gin, No. 2, or that in which the American cotton had already been cleaned, and found it well suited for cleaning the native cotton, though, from the small quantity of kupas, the proportion of work done could not be so easily determined. The only defect which I could perceive with either kind of cotton was that the seeds were not so perfectly cleaned as with the churka. This has also been found to be the case in India, when cotton seed cleaned by the churka yields about 25 per cent. of cotton, while the same cotton seed if cleaned by the saw-gin, would hardly yield 22 per cent. of clean wool. But this advantage in favour of the churka is rather apparent than real, for much of what is separated consists of short wool, leaf, sand, and other trash, which is got rid of in the willowing process of the factory, as well as by the American thrasher as now employed in Coimbatore and Tinnevely; as this, according to Dr. Wight, removes from $2\frac{1}{2}$ to 3 per cent. of trash from even very clean samples of churkaed cotton. That the cottage-gins are very effective instruments is evident from their separating 31 per cent. of clean cotton from the seed, but these were somewhat lighter than if they had been quite fresh. But on the other hand, as the seeds were somewhat shrivelled from dryness, the saws probably acted less equally, and therefore less effectually upon them, than if they had been in a fresh and plump state.

Having shown the efficiency as well as easy working of these cottage gins, it is desirable to inquire whether they are suited to the natives of India. In the first place, these instruments, like the original saw-gin, are especially fitted for the cleaning of American seed cotton, which is not so easily cleaned by the Indian churka. American cotton is not only the most in request at Manchester, but it is also in favourable climates the most profitable for cultivation in India. For in addition to bringing a higher price, both in the Bombay and English market, it will, with very little extra care in the culture, yield a large quantity of seed cotton per acre, while this seed cotton yields about nine per cent. more of wool than does the native seed. Its cultivation, however, has not spread so rapidly, except in Dharwar, as might have been expected. This is probably owing to the natives themselves not being able to spin it so easily as their own cotton; while the seed has been stated, I believe incorrectly, to be unfit for feeding their cattle. Part of the delay, however, attending the extension of this culture appears to me to have been owing to the difficulty of cleaning the cotton when grown. As seed cotton is a marketable article only to a particular class, the ryot has no other resource than to sell it to the middleman on his own terms, who will allege the difficulty of cleaning and finding a market for a new produce as a reason for giving a low price for it, if he should agree to buy it. The ryot, moreover, has no inducement to pick his cotton clean, as he does not get a better price for what the middleman has little value, as he systematically adulterates what he may have bought comparatively clean, with the object of increasing its weight. But if the ryot had the means within his reach of cleaning his cotton as fast as he picked it, he could then avail himself of the advantages of a more extensive market, and be able himself to receive the higher prices which an improved article may be expected shortly to command. The cottage-gin is, in my opinion, calculated to effect this object, for its cheapness will allow of its being much more extensively distributed, while a man's own family will be able to work it. This will give the cottage-gin a considerable advantage for small farmers, as even the 25-saw gin requires the labour of 10 men to work it efficiently. Its adoption by the natives will no doubt be facilitated in consequence of the superiority of the saw-gin for cleaning cotton being already known in the collectorates of Coimbatore, Dharwar, Belgaum, and Broach, as the engineers and planters sent out by the Court made up many saw-gins, which have been distributed, and even bought by the native dealers in some of the above districts.

But as the introduction of such an instrument would in any case be slow, I would recommend that the cottage-gin should be substituted for the money prizes which have been authorised by the Court to be given by collectors of districts for the extension of the culture of American cotton. It might be given as a reward to those ryots who have already cultivated the American cotton to any extent, and for two or three years. While to those who would engage to cultivate a certain quantity of American cotton, to be determined by the local authorities, I would lend one of those gins free of charge for the first year, and then give it

it as a prize to a ryot going on with the cultivation for three seasons. By this means a considerable number of cottage-gins might be advantageously distributed in the districts of Coimbatore, Dharwar, Belgaum, and Broach. Some others should be sent to the Governments of Bengal, Madras, and Bombay as models, and for introduction into such places, as more likely to adopt the culture of American cotton. The Court would thus have an opportunity of rewarding the ingenious mechanic for the expenditure of much time and labour on a subject in which they have always taken the greatest interest, especially as he cannot hope for many subsequent orders, because the engineers employed in India have taught the natives to make saw-gins of different sizes, which are as effective and much cheaper than those sent either from this country or from America.

Though I have dwelt particularly on the fitness of the cottage-gin for cleaning American cotton, it appears it is nearly equally useful for cleaning indigenous cotton, when this has been clean picked, and has not been allowed to hang on the bushes until both it and the seed have become dried up. But I have forborne dwelling on this point of the subject, as the recent despatches from India bring intelligence of the construction at Calcutta of a machine by Mr. Mather which is intended to clean indigenous cotton. In this instrument the revolving brushes of the saw-gin seem to have been attached beyond the cylinders of the Indian churka, and the mode of giving motion to these has been altered. The machine which has been produced (costing about 60 rupees) has been favourably reported of by Mr. Simms, the consulting engineer to the Indian Government, while the owners of the cotton mill at Fort Gloster speak well of the cotton which it has cleaned.

(signed) *J. Forbes Royle, M. D.*

East India House,
6 October 1848.

P. S. I beg to annex reports from spinners on the cotton cleaned by the cottage-gins, and which I have received since the above report was written; and I have to request that Mr. Petrie's report, dated Dundee, 15th August 1848, be sent in at the same time with the above report and those from spinners.

My dear Sir,

Manchester, 10 October 1848.

I HAD the pleasure on Saturday last, and now beg to hand you the enclosed reports as to the working of the cotton cleaned by the "cottage-gin." I send the several specimens to which the reports refer in a parcel per railway, and hope you will receive all safely in time for the Court to-morrow.

J. F. Royle, Esq., M. D.
&c. &c.

I am, &c.
(signed) *H. Fleming.*

To the Directors of the Manchester Commercial Association.

Orford Mills, Ashton-under-Lyne,
9 October 1848.

Gentlemen,

HAVING scutched and carded a sample of the cotton which had passed through the cottage saw-gin made for your association, we beg to state that the cotton was remarkably well cleaned, and the staple not at all injured by the process of ginning.

Yours, &c.
(signed) *Thos. & Wm. Mason & Son.*

To the Commercial Association, Manchester.

Gentlemen,

WE have scutched and carded a sample of the cotton which had passed through the "cottage saw-gin" made for your association, and beg to say that the cotton is remarkably clean and clear, and we could not perceive that the staple had sustained the slightest injury by the process of ginning.

Ashton-under-Lyne,
9 October 1848.

Yours, &c.
(signed) *James Knott & Son.*

To the Chairman of the Manchester Commercial Association.

Sir,

Ashton-under-Lyne, 9 October 1848.

WE have had submitted to us some of the cotton cleaned by Messrs. Jamieson's cottage saw-gin, and on examination, both previous to and after scutching, carding and spinning, cannot perceive that it has sustained the slightest injury by the ginning process. We consider it clean and clear from shell or leaf, and quite equal to, if not cleaner, than the generality of American cotton.

We are, &c.
(signed) *Thos. Mellor & Sons.*

I.
Bengal and
North Western
Provinces.

To *J. C. Melvill*, Esq., Secretary to the Honourable Court of Directors of the
East India Company.

Sir,

'Dundee, 15 August 1848.

A SMALL gin having been fitted up and set to work in the Commercial Association's rooms at Manchester, I was requested to examine the machine, and give an opinion on its merits. I have the honour to transmit for your perusal a copy of the report.

I have, &c.
(signed) *J. Petrie*.

To *H. Fleming*, Esq., Secretary to the Commercial Association, Manchester.

Sir,

IN accordance with the request of your association, contained in your letter to my address of date 12 July 1848, relative to a machine for cleaning cotton, I beg to state that I have carefully examined and subjected to trial the two small gins fitted up under the auspices of the association for cottage use in India.

The first trial of these machines, owing to a wrong construction of the bars, which impeded the free action of the cotton-roll, and a deficiency of curve, which made the machine work unsteadily, was not a very satisfactory one. At my suggestion, Mr. Lees, with whom the idea of a cottage-gin originated, had the front of one of these machines taken down and reconstructed with new bars, much stronger, and with more curve than the first ones. The experiments, after these alterations were made, were highly satisfactory, and I have no doubt but the machine, when all its parts have been properly adjusted, will be found well adapted for the purpose intended.

A comparative statement of—1. The work performed in a given time by this and by other machines in common use in India; 2. The cost of labour; 3. The wear and tear of machinery; and, 4. The expense of house-room, will perhaps give the best ideas of the merits of this small saw-gin.

1. The work performed in a given time :

1st. A hand-gin of 25 saws, worked by eight men, being two relays of four men each, will clean 100 lbs. of seed cotton in 70 minutes with ease, or 3.43 lbs. per saw per hour, or 10.71 lbs. per man per hour.

2d. The cottage gin of four saws, worked and fed by one man, will clean 16 lbs. of seed cotton in 70 minutes, or 13.7 per man per hour.

3d. The common churka, worked by one man, or a woman, or a boy, will clean about three lbs. of seed cotton per hour.

2. The cost of labour :

1st. The cost of cleaning a candy of 500 lbs. of cotton wool by the hand-gin is, on an average, Rs. 3. 14.

2d. The cost of performing the same work by the cottage gin (assuming that one man can continue at the same rate of 13.7 lbs. for five hours and a half, in which time he will have cleaned about 75 lbs. of cotton, which is a good day's work) will be Rs. 3. 4, being at the rate of 1*a.* 8*p.* per man per day, the pay given to coolies employed on the hand-gin.

3d. The average price of doing the same work by the churka is about five rupees.

3. Wear and tear of machinery :

1st. A hand-gin, worked by two sets of coolies, will clean 1,000 lbs. of seed cotton per day, and (allowing 300 working days to the year), 300,000 lbs. in one year. Take 20 per cent. per annum for repairs and depreciation of machinery, or, in other words, the machine in five years will require a sum to have been expended on its repairs, which, added to the depreciation which it will have sustained, will equal in amount its original cost. In that time it will have cleaned 1,500,000 lbs. of seed cotton, or 1,500 bales, of 300 lbs. each, of wool. The price of an Indian-made gin, with driving-wheel, is about 20*l.* The cost of machinery therefore will be 3 $\frac{1}{3}$ *d.* per bale of cleaned cotton.

2d. The cottage-gin, with a relay of coolies, will clean 150 lbs. of cotton per day, or, employing the same figures as in the former case, 225 bales, of 300 lbs. each, in five years. The cost of this machine in England is 2*l.* 10*s.* or (allowing 10*s.* for freight, which is above the mark, as the measurement is only three and a half cubic feet, and the weight 112 lbs.) in India 3*l.* The cost of machinery therefore will be 3 $\frac{1}{3}$ *d.* per bale.

3d. An Indian churka will clean 25 lbs. of seed cotton per day, or, taking the same figures as in the former cases, 37 bales, of 300 lbs. each, in five years. The cost of a churka is 12 annas. The cost of machinery therefore will be $\frac{1}{2}$ *d.* per bale.

4. The expense of house-room :

The saving under this head by the introduction of the small gin, although it must be very considerable, cannot be so easily expressed in figures. The hand-gin requires a house of tolerable dimensions for its accommodation, while the other is so small that a common hut will be large enough for its being set to work in.

The

The results obtained from these comparisons may, for convenience sake, be brought together in a tabular form.

I.
Bengal and
North Western
Provinces.

	Quantity Cleaned, per Man per Hour.	Price of Cleaning, per Candy of 500 Lbs.	Cost of Machinery on every Bale.
	Lbs.	Rs. a.	d.
Hand-gin - - - -	10·71	3 14	3 ½
Cottage-gin - - - -	13·7	3 4	3 ½
Churka - - - - -	3·	5 -	- ½

The advantage shown in the first two columns is considerably in favour of the cottage gin; while in the third, viz., the cost of the machine, it is greatly in favour of the churka.

In order to form a correct opinion on this point, we must compare the cost of labour by each of these machines. In the table we find that 500 lbs. of cotton cleaned by the churka costs five rupees, while by the cottage-gin the cost is only Rs. 3. 4; thus a saving of one rupee twelve annas is effected on every candy by the use of the latter. The cottage-gin, according to our estimate, cleans 150 lbs. of seed cotton per day, or 21 candies of cotton wool in a year; the saving in one year therefore by the use of the cottage-gin, as compared with the churka, is 36 rupees, which is six rupees more than the original cost of the machine.

It is desirable that these machines should be as perfect as possible before they leave this country; I would therefore suggest the propriety of your association having them worked for several days on both Indian and American seed cotton, in order accurately to test their efficiency, and in particular to ascertain whether by an alteration in the pitch of the bars, or a different arrangement of the mote-board, the seeds are capable of being better cleaned. This was the only respect in which your gin appeared to me to be inferior to the larger ones. It is true that the out-turn, according to our experiments, was very good, being 29½ per cent. of wool to seed cotton; but it must be taken into consideration that the cotton we had for working on was old, and the seeds consequently much lighter than if they had been the crop of last year, which would make a considerable difference in favour of a large out-turn. Be that as it may, the seeds did not appear to be so clean as they ought to have been. The native cotton merchants of India are close calculators, and if the out-turn by your machine is half per cent. less than that by the machines now in use, it runs the risk of never getting a fair trial; it matters not how much cleaner or more quickly the work is performed, the prospect of a deficiency in quantity will prejudice them against it at starting. If American cotton becomes an article of extensive cultivation in India, this gin will be of great service. The hand-gin is too expensive for the common native, and their own machine, the churka, does not answer on that description of cotton. In making up gins of this size, the following remarks may be useful.

1. The best speed for a saw of 10 inches diameter is from 130 to 150 revolutions per minute, according to the kind of cotton being ginned.

2. The periphery of the brush, if it contains eight leaves, ought to move five inches for every inch of the saw; or your brush, which is 16 inches diameter, ought to make three revolutions for every one the saw makes.

3. The curve of the bars ought to be considerably behind the centre line of the saw, so that the roll of seed cotton when undergoing the process of ginning may rest well on the top of the saw.

4. All large gins have two sets of bars; the back bars prevent any seeds that may have passed the front bars from being caught by the brush and blown into the lint room amongst the clean cotton.

5. Saws of 8-inch diameter have been found to answer well in hand-gins; these might be introduced with advantage in the cottage-gin.

Following out Mr. Lees' idea, I shall send you by-and-bye a sketch of a wooden gin, different from yours, which the natives can easily imitate, and which I think would answer well. If it were adopted, the saws only would require to be sent from this country.

(signed) James Petrie.

I.

Bengal and
North Western
Provinces.

Manchester Commercial Association,
7 October 1848.

My dear Sir,

IMMEDIATELY on receipt of your note of 6th instant, over to Ashton, to make the necessary inquiries of Mr. Jamieson respecting "the cottage-gins;" and now beg to hand you copy of a letter which he has addressed to me, in which he undertakes to supply 200 at 3*l.* each, packing-cases included, being about 55*s.* per gin. The price has been advanced on the original estimate, in consequence of sundry additions to and improvements in the machine, such as moveable "steps" for altering the position of the brush and saws at pleasure; also an arrangement for adjusting the tension of the driving-bands; a more expensive kind of grate, of a nature much more durable; a cover for the hopper, &c.; none of which existed in the first-made gins. The machines have been rendered far more perfect and serviceable by their introduction, while the cost has not been materially increased. The association think it would be unwise to send the gins *via* London; the carriage by canal from hence to Liverpool being only 8*s.* 4*d.* per ton, and freights at the latter place being quite as low as at London. Each case would weigh 2½ cwt.

We do trust that the Honourable Court will see fit to give the order, and I can only say that the machines shall be carefully watched and tested in every stage by myself and other gentlemen connected with the association; so that on their arrival in India they shall be found as complete as possible.

You will please to bear in mind that the gin which I forwarded to your address on the 4th, being driven by spur-wheels, will not show all the improvements above alluded to.

I am, &c.

(signed) *Hugh Fleming*, Secretary.

(Copy.)

Oldham Road Foundry, Ashton-under-Lyne,
7 October 1848.

Sir,

I WILL make you 200 saw-gins, the same as the samples shown at your rooms at Manchester, for the net sum of 3*l.* each, including packing-cases.

Two gins to be packed in each case, and delivered at the railway station, here or in Manchester.

I am, &c.

H. Fleming, Esq., Secretary,
Commercial Association, Manchester.

(signed) For *Wm. Jamieson*.
Thomas Parry.

P.S.—I can deliver 50 in six weeks, and 100 in three months, from the date of the order.

Manchester Commercial Association,
28 February 1849.

Sir,

I HAVE the honour to acquaint you, for the information of the Court of Directors of the Honourable the East India Company, that in accordance with the instructions conveyed to me in your letter of the 7th February, I have forwarded to Liverpool 20 cases, each containing two "cottage saw gins," as per invoice, copies of which I have the honour to transmit. Of these packages, eight have been shipped per the "Duke of Lancaster," which sailed for Bombay on the 26th instant, and 12 per the "La Belle," for Madras, now ready for sea.

It will be observed that the number of machines shipped is 10 short of that originally intended, which has arisen from its having been found necessary to return a number of defective saws to Sheffield for alteration. Mr. Petrie, however, informs me that 50 more saw gins will be ready for India in the course of the ensuing month.

I further enclose a memorandum as to the mode of setting the gins to work, which has been prepared by Mr. Petrie, in compliance with the desire expressed in the last paragraph of your letter, now under acknowledgment.

I have, &c.

James C. Melvill, Esq., &c. &c. &c.
East India House, London.

(signed) *Hugh Fleming*, Secretary.

INVOICE of Eight Cases, addressed to the Right Honourable the Governor in Council, Bombay shipped per "Duke of Lancaster."

I.
Bengal and
North Western
Provinces.

Set No. 1 of "Cottage Saw Gins."

Three cases, marked A Nos. 1 to 3, each containing two iron saw gins.
One case, marked A No. 4, containing one iron and one wooden saw gin, four spare saws, four screw keys, 16 spare brush leaves, and three spare bands.

Set No. 2.

Three cases, marked B Nos. 1 to 3, each containing two iron saw gins.
One case marked B No. 4, containing one iron and one wooden gin, four spare saws, four screw keys, 16 spare brush leaves, and three spare bands.

INVOICE of Twelve Cases, addressed to the Right Honourable the Governor in Council, Madras, shipped per "La Belle."

Set No. 3.

Three cases, marked C Nos. 1 to 3, each containing two iron saw gins.
One case, marked C No. 4, containing one iron and one wooden saw gin, four spare saws, four screw keys, 16 spare brush leaves, and three spare bands.

Set No. 4.

Three cases, marked D Nos. 1 to 3, each containing two iron saw gins.
One case, marked D No. 4, containing one iron and one wooden gin, four spare saws, four screw keys, sixteen spare brush leaves, and three spare bands.

Set No. 5.

Three cases, marked E Nos. 1 to 3, each containing two iron saw gins.
One case, marked E No. 4, containing one iron and one wooden gin, four spare saws, four screw keys, sixteen spare brush leaves, and three spare bands.

MEMORANDUM of Information as to the Setting and best Mode of working the "Cottage Saw Gin."

THE first thing to be observed in setting these machines for working is, that all the feet rest on the bench or block of wood on which they are to stand. When this point has been determined, they are to be fastened down with common inch screws, for which provision is made. The eye is a sufficient guide in setting them level, as they will do their work as well at a slight angle as when carefully adjusted with a spirit level.

The second operation is to clean the tallow off the saws and bars; this is rather a tedious business: every tooth of the saw requires to be quite clean before the gin will do its work. A carpenter's chisel or a large knife will take off the thick coating, and a piece of cloth saturated in cocoa-nut oil will do the rest. The oil must afterwards be wiped off.

An engraving is attached to every gin, which shows distinctly how the driving wheel and band is to be put on.

In starting new gins, I have found it necessary to work them for an hour or two on inferior cotton; and, in order to take the roughness off the teeth of the saws, a handful or two of dry sand may be passed through. This does no harm.

The machines are so constructed, that the grating, or hopper, may be moved up or down, backwards or forwards, so as to give the saw more or less hold of the cotton, according to the fancy of the planter or driver; thus, a gin may be made to do light or heavy work to suit the driving power. If a man is the driver, it may be set to do two pounds of cotton in five minutes; if a boy or woman, it may be altered to do two pounds in nine or ten minutes; but these experiments should not be tried till people become conversant with the subject. Every gin has been tried and adjusted to do a fair amount of work, viz., two pounds of seed cotton in six minutes.

The gins are arranged in sets of eight, viz., seven of iron and one of wood. The wooden one being intended as a model for the natives to imitate, it would be advisable to have them distributed in India in sets; they are invoiced with this view; a letter being the distinguishing mark for each set, thus, A No. 1, A No. 2, A No. 3, A No. 4, B No. 1, B No. 2, &c. The fourth case in each set contains the wooden gin. I may take this opportunity of observing, that the gins which have left for India, viz., 16 for Bombay and 24 for Madras, are constructed for American cotton only. I am now making experiments with a view to having the remainder of the order constructed for cleaning either the American, Bourbon, or native Indian varieties.

(signed) Jas. Petrie.

Home Department, Revenue.—No. 12 of 1850.

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

IN continuation of para. 9 of our letter No. 6, dated the 23d May last, we have the honour to transmit the accompanying reports which have been received from Mr. Price at Dacca, and Mr. Bell at Agra, on the working of the cottage saw-gins referred to in your Honourable Court's despatch, No. 5 of 1849, dated the 27th June.

We have, &c.
(signed) *J. H. Littler.*
Wm. Gomm.
F. Currie.
J. Lowis.

Fort William, 27 December 1850.

(No. 541.)

From the Under-Secretary to the Government of Bengal to *W. Grey*, Esq., Under Secretary Government of India, Home Department; dated Fort William, 31 May 1850.

Sir,

I AM directed by the Deputy Governor of Bengal to forward copies of reports received from the Sudder* Board of Revenue and from the Government† of the North Western Provinces on the working of the cottage saw-gins sent out from England, for communication to the Honourable the Court of Directors, as requested in the 3d para. of their despatch, No. 5 of the 27th June 1849, a copy of which was received with your letter, No. 483, dated the 18th August last.

I have, &c.
(signed) *W. Seton Karr,*
Under Secretary to the Government of Bengal.

From *H. Hamilton Bell*, Esq., Agra, to *R. Thornton*, Esq., Assistant Secretary to the Government, North Western Provinces, Head Quarters.

Sir,

I BEG to acknowledge your letter, No. 1285 of 1850, forwarding copy of a letter from the officiating Under Secretary to the Government of Bengal, dated 2d instant, No. 52, together with copy of a report from Mr. Price, Superintendent of the Dacca cotton farm, on the working of a saw-gin received from England in November last.

Your letter further expresses the Lieutenant-governor's desire that I should state my opinion of the merits of the cottage saw-gin entrusted to my charge.

I do not understand whether Mr. Price's report refers to the cottage gin; I am inclined to infer that this is not the case, but if it does, the objections he offers to the machine do not coincide with my observation on the working of those delivered to me; I do not find that the seed of our indigenous cotton passes through the gratings.

The objection to the principle of the machine, so far as my observation goes, lies in the inapplicability of the saw-gin to our short-stapled cotton. In all the trials I have made, the cotton is so much cut as to be unfit for spinning. As to the details, I concur in the remark that the space in which the kupas revolves, when in contact with the saw, is too contracted, and does add to the trouble of the person feeding, and diminishes the rapidity of movement and its out-turn of ginned cotton. I should remark, that the quantity of work it performs at Dacca greatly exceeds any result I have been able to obtain here, and strengthens my suspicion that Mr. Price reports on a different machine, unless the native churka there differs materially from that in use in these provinces. He states that the machine will do the work of 30 churkas, which may be taken as nearly 300 lbs. per day; for although my average, with from 400 to 500 churkas at work at the same time, gives only a return of 8 lbs. per churka; this arose in part from the unequal time employed by different individuals, some strong men reaching 16 lbs. for a full day's work. I can also hardly conceive such an out-turn from four saws. The American saw-gin with 60 saws, when in work here, gave returns very disproportionate, varying from 400 to 440 lbs., and even in Broach they merely reached, according to Dr. Burn's statement, 656 lbs. per day, which is scarcely more than twice the return of the cottage gin with four saws, according to Mr. Price.

On the whole, my impression is, that the cottage gin does not answer its proposed object, or afford any facility for improvement of the native cotton for the home market. In its present

* Letter from Mr. Price, 16 February, to Mr. Mytton.

† Mr. Bell's letter, 1 May, and reply to it.

present condition I do not think that it will receive or deserve public attention ; but is very prettily got up, and the substitution of rollers for the saw might possibly lead to a self-feeding churka by roughening the larger roller, thus giving it a capacity of drawing the kupas within the action of the rollers.

I.
Bengal and
North Western
Provinces.

Agra, 1 May 1850.

I am, &c.
(signed) *H. Hamilton Bell.*

(No. 1561 of 1850.)

From *J. Thornton*, Esq., Secretary to the Government, North Western Provinces, to
H. H. Bell, Esq., Agra.

Sir,

IN conveying the thanks of the Lieutenant-governor for the report furnished by you under date the 1st instant, on the merits of the cottage saw-gins entrusted to your charge, I am desired to request that you will place two or three of the cottage gins at the disposal of Sir R. Shakespear, at Gwalior, if that officer is desirous to have them. Revenue Depart-
ment.

2. With reference to the concluding para. of your letter, his Honour begs that you will consider yourself at liberty to alter experimentally one of the gins by the substitution of rollers for saws, if you feel disposed to do so.

Head Quarters,
23 May 1850.

I am, &c.
(signed) *J. Thornton*,
Secretary to the Government, N. W. P.

(True copies.)
(signed) *R. Thornton*,
Assistant Secretary to Government, N. W. P.

(True copies.)
(signed) *W. Seton Karr*,
Under Secretary to the Government of Bengal.

(No. 8 of 1850.)

From *J. O. Price*, Esq., Government Cotton Planter, to *R. H. Mytton*, Esq., Officiating Commissioner of Dacca.

Sir,

IN reply to your letter of the 28th December 1849, No. 226, respecting the working of the new saw-gin, I have the honour of informing you that I find it well suited for cleaning the American and Bourbon kinds of cotton, but the gratings through which the saws work are too wide for cleaning the indigenous kinds, the seed of which is very small, and in consequence of which a great portion of it passes through with the wool ; this evil in preparing others for ginning that description of cotton, could be easily avoided, but in doing which particular attention would be required in the arranging of the saws, so as to make them revolve exactly true, to prevent the teeth of the saws coming in contact with the edge of the bars ; if this was effected, and its price come within their means, it would make it a very valuable machine to the natives in cotton-growing districts. The speed of this one in cleaning exotic cotton is good, in fact, equal to that of the large American gins in proportion to the number of saws, but eight or ten saws would be still better suited for the purpose than only four, the number in this one, for several reasons ; in the first place, the same number of hands would work it, and clean double the quantity of cotton ; and, secondly, it would be much easier fed from the room that the feeder would have, to scatter the cotton across the saws so as to assist them in quick ginning, besides the very small space that the cotton has to revolve in when in contact with the saws, the friction against the sides of the feeding box is very considerable. It affords me much pleasure in being able to report to you that three hands are able to clean as much cotton in a day with this small gin as 30 hands are capable of doing with the Dacca native churka, and with a few additional saws, I am confident the proportion would be greater.

I have, &c.
(signed) *J. O. Price*,
Government Cotton Planter.

Dacca Government Farm,
16 February 1850.

Sudder Board of Revenue, Fort William,
15 March 1850.

(True copy.)
(signed) *G. Plowden*, Secretary.

(True copy.)
(signed) *W. Seton Karr*,
Under Secretary to the Government of Bengal.

I.
Bengal and
North Western
Provinces.

(No. 406.)

From *W. Grey, Esq.*, Under Secretary to the Government of India to *W. Seton Karr, Esq.*,
Under Secretary to the Government of Bengal.

Sir,

Home Dept.,
Revenue.

I AM directed to acknowledge the receipt of your letter, No. 541, dated the 31st ultimo, forwarding copies of reports from Messrs. Price & Bell, on the working of the cottage saw-gins sent out by the Honourable Court of Directors.

2. In transmitting these reports to the Honourable Court, the President in Council is desirous that there should be no uncertainty as to the quantity of work which one of these machines can perform daily; Mr. Price says merely "that three hands are able to clean as much cotton in a day with this small gin as 30 hands are capable of doing with the Dacca native churka." But his Honor in Council would wish to know exactly what the quantity is that 30 hands are capable of cleaning with the Dacca native churka, and how many churkas are worked by 30 hands. His Honor in Council understands Mr. Price to mean that three hands are necessary to work one of the cottage saw-gins.

3. The President in Council wishes also that Mr. Price should be asked whether the further experience which he may have had of the working of the saw-gin subsequent to the date of the last report has afforded him cause for modifying in any respect the opinions which he then expressed regarding it.

I have, &c.

(signed) *W. Grey,*

Council Chambers, Under Secretary to the Government of India.
14 June 1850.

(No. 708.)

From the Under Secretary to the Government of Bengal to *W. Grey, Esq.*, Under Secretary to the Government of India, Home Department; dated Fort William, 27 July 1850.

Sir,

Revenue.

WITH reference to your letter, No. 406, dated the 14th ultimo, I am directed by the Deputy-governor of Bengal to forward the accompanying copy of a letter from Mr. Price to the address of the Commissioner of Dacca of the 6th instant, furnishing the information required by the Government of India relative to the working of the saw-gins.

I have, &c.

(signed) *W. Seton Karr,*

Under Secretary to the Government of Bengal.

(No. 35 of 1850.)

From *Mr. J. O. Price*, Government Cotton Planter, to *R. H. Mytton, Esq.*, Officiating Commissioner of Dacca Division.

Sir,

I HAVE the honour of being in receipt of your letter of the 5th instant, enclosing a copy of a letter from the Sudder Board, requiring further information respecting the efficiency of the working of the new cottage saw-gin; in reply to which, I beg leave to inform you, that the one in my charge is capable of cleaning from 80 to 90 seers of cotton with seed in a day of nine and a half hours, which would give nearly one-third that quantity of clean cotton wool. The Dacca churka, with almost unceasing labour of one hand for 12 hours, is only capable of cleaning three seers of cotton, including the seed; it would, therefore, require 30 hands to clean 90 seers of uncleaned cotton; which quantity, as I have before stated, the small cottage saw-gin, with three hands, would clean in less time.

2. With respect to any change having taken place in my opinion regarding the qualities of the cottage saw-gin, I have pleasure in stating that I am still of the same favourable opinion that I was when I last reported on it; also of the opinion that I then expressed regarding it, namely, that it would be greatly improved by increasing the saws to that of ten instead of four, which number it now has; it would then only require the same three hands to work it which it now does, and reduce the expense of cleaning the cotton at least 50 per cent.

I have, &c.

(signed) *J. O. Price,*

Government Cotton Planter.

Dacca, 6 July 1850.

Sudder Board of Revenue, Fort William,
23 July 1850.

(True copy.)

(signed) *George Plowden, Secretary.*

(True copy.)

(signed) *W. Seton Karr,*

Under Secretary to the Government of Bengal.

(No. 532.)

From *W. Grey*, Esq., Under Secretary to the Government of India, to *W. Seton Karr*, Esq.,
Under Secretary to the Government of Bengal.

I.
Bengal and
North Western
Provinces.

Sir,

WITH reference to your letter, No. 708, dated the 27th ultimo, I am directed to request that Mr. Price may be called upon to report further whether he is of opinion that, with exception to the too great width of the gratings, noticed in his letter to Mr. Commissioner Mytton, dated the 16th of February last, the cottage saw-gin is equally well suited for cleaning the indigenous cotton, as for cleaning the American and Bourbon kinds of cotton. In the trials which have been carried on with the cottage saw-gin in the Agra Presidency, it has apparently been found that the short-stapled indigenous cotton has been so much cut as to be unfit for spinning.

Home Department
Revenue.

Council Chamber, 9 August 1850.

I have, &c.
(signed) *W. Grey*,
Under Secretary to the Government of India.

(No. 1197.)

From the Under Secretary to the Government of Bengal to *W. Grey*, Esq., Under Secretary to the Government of India, Home Department; dated Fort William, 5 December 1850.

Sir,

IN reply to your letter No. 532, dated the 19th of August last, I am directed by the Deputy-governor of Bengal to forward a copy of a further report from Mr. Price respecting the qualities of the cottage saw-gin, to the address of the Collector of Luckimpore, forwarded by the Sudder Board of Revenue.

Revenue.

I have, &c.
(signed) *W. Seton Karr*,
Under Secretary to the Government of Bengal.

(No. 13.)

From *J. O. Price*, Esq., Superintendent Government Cotton Cultivation, Assam, to
Captain *H. Vetch*, Collector of Luckimpore.

Sir,

I HAD the honour of receiving, on the 5th instant, your letter, with its enclosure, from Government, requiring further information respecting the qualities of the cottage saw-gin with respect to its cleaning indigenous cotton; and in reply to which I beg leave to inform you, that I am of opinion that the teeth of the saws would require to be reduced in proportion to the reduction of grating already recommended by me; but as I am aware from experience that remodelling or correcting saws for gins is a very difficult matter, and one which no person but a thorough gin-wright ever attempts in America, I am therefore induced to take the liberty of recommending to Government the necessity of having the saws prepared under the superintendence of some person perfectly acquainted with that branch of mechanism, such as the late engineer on the Coimbatore government farms, who had a few sets of saws prepared in England from a model sent home by him, which so perfectly answered every purpose required of them in cleaning the indigenous cotton, not only with respect to quantity, but also the quality of the cotton cleaned by them, which, when sent home, brought a higher price, I understood, than any churka-cleaned cotton then in the English market, which is a convincing proof of the saw-gin being capable of being brought into general use in this country, at least by all parties who have the means of purchasing it, who, in fact, are the only persons likely to clean cotton to any extent in this part of India, as the ryots never clean more than what they require for their own purposes, and sell the remainder uncleanned.

Regretting that indisposition should have prevented my being able to reply to your letter sooner,

Dibrooghur, 22 October 1850.

I have, &c.
(signed) *J. O. Price*,
Supert. Govt. Cotton Cultivation, Assam.

(True copy.)
(signed) *W. Seton Karr*,
Under Secretary to Government of Bengal.

I.
Bengal and
North-Western
Provinces.

Sir,

N. Merchiston House, Edinburgh,

14 October 1848.

HAVING lately received information, through Mr. Fleming, secretary to the Manchester Commercial Association, that inquiry is making at Bombay regarding the roller-gin that was made here by me, and sent out to Bombay by the Honourable the Court of Directors of the East India Company, I beg leave to inform you that I neglected last year, on receiving intimation of the machine having been sent out to Bombay, to inform you that it would be necessary to alter the wooden roller of the machine, as it was made of soft wood, and would yield and crush the seed; it was only intended by me to remain in the machine until I could get a supply of hard wood from the West Indies, which I have now obtained.

I ought at the same time also to have informed you, that I have increased the power of the back speed of the machine seven to one, and also that I have introduced cast-steel centres into the machine, which can be easily removed and replaced by new centres, if necessary.

I am also desirous of informing you, as it has been doubted, that New Orleans cotton has been well cleaned by the roller-gin by me in India, and that this kind of cotton is equally well cleaned by it as by the saw-gin; and that at the present time I have some New Orleans seed cotton, which I find on trial the roller-gin separates from the seed completely.

I have lately observed that several cotton-cleaning machines have been made, but I trust this will not withdraw the attention and support that has been given to the above-mentioned one. The design of one of these which I have seen, consists of a direct screw-pressure over the middle of the upper roller, an error which I believe few engineers would fall into. That of another is to drive the machine with the foot. In this country this might do, but a sitting posture will be preferred by the natives of India. Another is to make both rollers of iron. This has been already tried, but the dust is found soon to wear the metal unequally and alter the true bearing of the surface of the rollers.

I have the orders to execute for other parties for these machines, and I will be prepared to receive and execute any that may be given me in the cheapest and best manner, which, as I must keep on hand the materials required, I am well prepared to do.

James C. Melvill, Esq.,
East India House, London.

I am, &c.
(signed) *Robert Burn.*

P. S.—The report of their experiments published by the East India Company, unparalleled in the history of any Government for length and persevering efforts, records information of which the above is a mere repetition, as would appear if that report was better attended to. The valuable information it contains would save much time and expense to many, and show them where, by availing themselves of the facts it has registered, they may not only add to, but turn these to account.

EAST INDIA (COTTON).

RETURN to an Order of the Honourable The House of Commons,
dated 24 August 1857;—for,

A SELECTION “ of PAPERS showing the Measures taken since 1847 to
promote the CULTIVATION of COTTON in INDIA.”

East India House, }
24 August 1857. }

J. C. MELVILL.

(*Mr. Seymour.*)

PART II.
M A D R A S.

Ordered, by The House of Commons, to be Printed,
24 August 1857.

CONTENTS AND INDEX.

M A D R A S.

CULTIVATION IN, AND CAPABILITIES OF THE PROVINCES OF THIS PRESIDENCY FOR THE PRODUCTION OF COTTON.*

	PAGE
Reply of the Government of Fort St. George to the Requisition of the Court of Directors, dated 10 Nov. (No. 25) 1847	1
Minute by the President (Marquis of Tweeddale), 21 May 1847	1
Minutes of Consultation, 28 May 1847	2
Dr. Wight's Report in Reply to Queries of the Court, 17 March 1848	4
Government of Fort St. George to Court of Directors; Replies to Inquiries circulated previously to the receipt of those suggested by the Court of Directors, dated 19 Sept. (No. 69) 1848	6
Board of Revenue, Madras	7
H. Stokes, Esq., Guntoor	9
R. Mellor, Esq., Bellary	10
J. H. Cochrane, Esq., Cuddapah	16
H. D. Phillips, Esq., Kurnool	21
J. F. Bishop, Esq., Tanjore	23
R. D. Parker, Esq., Madura	23
F. B. Elton, Esq., Tinnevelly	25
J. C. Wroughton, Esq., Coimbatore	28
Government of Fort St. George to Court of Directors; Replies to Court's Inquiries, dated 5 Dec. (No. 88) 1848	32
Major-General Cubbon, Commissioner, Mysore	32
Captain H. Montgomery, Astagram Division	32
Captain G. Haines, Bangalore	34
Captain R. S. Dobbs, Chittledroog	34
Captain W. C. Onslow, Nuggur	35
Board of Revenue, dated 13 Nov. 1848	36
J. H. Stokes, Esq., Guntoor	38
A. Mellor, Esq., Bellary	40
J. H. Cochrane, Esq., Cuddapah	41
H. D. Phillips, Esq., Kurnool	44
R. D. Parker, Esq., Madura	45
E. B. Thomas, Esq., Tinnevelly	46
J. C. Wroughton, Esq., Coimbatore	46
Minutes of Consultation, 5 Dec. 1848	48
Government of Fort St. George to Court of Directors, 13 Jan. (No. 2) 1849	49
Resident of Travancore and Cochin	50
V. Kristna Row, Dewan of Travancore	51
Shungra Warriar, Cochin	52
Resident of Travancore and Cochin, Major-Gen. Cullen	53
Government of Fort St. George to Court of Directors, 7 March (No. 14) 1849	54
T. J. Finnie, Esq., Aroopocottah	55

* In classifying the Papers, subjects are, occasionally, unavoidably intermixed. Reference to Pages of the Return will be more convenient than the Dates or Numbers of Documents.

YEARLY REPORTS OF COTTON CULTIVATION IN THE SEVERAL COTTON-
GROWING DISTRICTS OF THE MADRAS PRESIDENCY.

	PAGE
Government of Fort St. George to the Court of Directors, 21 Sept. (No. 53) 1849	58
Board of Revenue, General Abstract, 23 August 1849	59
Report from Guntoor, Fusly 1258	61
" Bellary, Fusly 1251 and 1253	62
" Cuddapah, one year	62
" Kurnool, Fusly 1252 to 1256	63
" Tanjore " 1256	64
" Madura " 1257	65
" Tinnevelly " "	67
" Coimbatore " "	67
Minutes of Consultation, 12 September 1849	68
Government of Fort St. George to Court of Directors, 10 Sept. (No. 46) 1850	69
Board of Revenue, General Abstract, Fusly 1258	69
Report from Guntoor (already sent) " "	61
" Tinnevelly - - " "	70
" Coimbatore - - " "	72
" Kurnool - - " "	74
" Madura - - " "	75
" Bellary - - " "	72*
" Cuddapah - - " "	76*
Minutes of Consultation, 30 August 1850	81*
Government of Fort St. George to Court of Directors, 7 July (No. 35) 1851	82*
Board of Revenue, General Abstract, Fusly 1259	82*
Report from Guntoor - - " "	82
" Bellary - - " "	85
" Cuddapah - - " "	86
" Kurnool - - " "	87
" Madura - - " "	89
" Tinnevelly - - " "	91
" Coimbatore - - " "	93
Minutes of Consultation, 28 June 1851	96
Government of Fort St. George to Court of Directors, 6 May (No. 21) 1853	96
Board of Revenue, General Abstract, Fusly 1260	96
Report from Guntoor - - " "	99
" Bellary - - " "	101
" Cuddapah - - " "	106
" Kurnool - - " "	107
" Madura - - " "	109
" Tinnevelly - - " "	110
" Coimbatore - - " "	113
" Nellore - - " "	113
" Canara - - " "	114
Minutes of Consultation, 27 April 1853	116
Government of Fort St. George to the Court of Directors, 3 April (No. 16) 1854	118
Board of Revenue, General Abstract, Fusly 1261	119
Communication with the Bombay Government	117 & 118
Statement of extent of Land cultivated with Indigenous and Exotic Cotton in Fusly 1262	122
Report from Guntoor, Fusly 1261	122
" Bellary " "	124
" Cuddapah " "	126
" Kurnool " "	127
" Madura " "	128
" Tinnevelly " "	130
" Coimbatore " "	133
" Nellore " "	136
Minutes of Consultation, 31 January 1854	138

EXPENSES INCURRED IN PROMOTING EXPERIMENTS FOR THE IMPROVEMENT
OF COTTON, ITS CULTIVATION AND PREPARATION FOR THE MARKET:

	PAGE
Court of Directors to Government of Fort St. George, 18 May (No. 8) 1847 - -	139
Statements from the Accountant-General Madras :	
From the Commencement to April 1847 - - - - -	139
For 1847-48 - - - - -	141
,, 1848-49 - - - - -	143
,, 1849-50 - - - - -	144
,, 1850-51 - - - - -	145
,, 1851-52 - - - - -	146
,, 1852-53 - - - - -	148

PROCEEDINGS OF DR. WIGHT, SUPERINTENDENT OF COTTON EXPERIMENTS,
COIMBATORE :

Court of Directors to Government of Fort St. George (Allowances of Dr. Wight), 2 June (No. 10).1847 - - - - -	149
Court of Directors to Government of Fort St. George (Allowances of Dr. Wight), 14 July (No. 16) 1847 - - - - -	149
Government of Fort St. George to Court of Directors (Extract), 16 July (No. 42), 1847 - - - - -	151
Dr. Wight to Mr. Secretary Melvill: Observations in reply to Manchester Com- mercial Association, Mr. J. Aspinall Turner's Letter, 14 July 1847 - -	151
Government of Fort St. George to Court of Directors: Proposal for Reduction of Assessment on Land cultivated with American Cotton, and for Two small Farms; also, for the Substitution of an " Agency confined to practical Planters;" a Memo- randum from Mr. Finnie, 14 January (No. 7) 1848 - - - - -	152
Dr. Wight to Secretary, Fort St. George, 20 June 1847 - - - - -	153
,, to Principal Collector, Coimbatore, 14 June 1847 - - - - -	155
Principal Collector, Coimbatore to Dr. Wight, 15 June 1847 - - - - -	156
Minutes of Consultation, 17 August 1847 - - - - -	157
Dr. Wight to Secretary to Government Fort St. George, 4 August 1847 - -	157
Minute of President, Marquis of Tweeddale, 3 September 1847 - - - - -	158
,, The Honourable Mr. Chamier, 8 September 1847 - - - - -	160
,, Mr. Dickinson, 13 September 1847 - - - - -	160
Dr. Wight to Secretary to Government Fort St. George, 24 August 1857 - -	160
Memorandum of purchase of Native Cotton, by Mr. Petrie - - - - -	163
Chamber of Commerce to Secretary to Government, Fort St. George, 25 Sept. 1847 - - - - -	164
Cost and Charges of Shipments of Cotton from Madras to England in 1845, 1846, and 1847 - - - - -	164
Dr. Wight to Secretary to Government Fort St. George, 26 Oct. 1847 - -	164
Extract; Anonymous Letter to Dr. Wight - - - - -	166
Extract; Dr. Wight to J. A. Turner Esq., 27 Sept. 1847 - - - - -	167
Minute by the President, Marquis of Tweeddale, 11 Dec. 1847 - - - - -	169
Memorandum by Mr. Finnie, 16 Nov. 1847 - - - - -	171
Minute by the Honourable Mr. Chamier, 17 Dec. 1847 - - - - -	178
,, Mr. Dickinson, 18 Dec. 1847 - - - - -	178
Court of Directors to Government of Fort St. George: Objections to reduce the Assessment on American Cotton Lands; and to the Deputation of Mr. Finnie to England: Observations on the Agency proposed, dated 4 July (No. 11) 1848	179
Government of Fort St. George to Court of Directors (Extract); Reply of Dr. Wight to Observations of Manchester Commercial Association, regarding Extension of Cul- tivation of " New Orleans," 28 July (No. 56) 1848 - - - - -	181
Dr. Wight to Secretary to Government Fort St. George, 2 June 1848 - -	181
Government of Fort St. George to Court of Directors: Difference in the Views of Dr. Wight and Mr. Finnie, 7 March (No. 14) 1849 - - - - -	184
Dr. Wight to Secretary to Government Fort St. George, 26 January 1849 -	185
Table of Mean Temperature of places in Texas, Louisiana, Mississippi, and Alabama - - - - -	190
Table of Mean Temperature in Florida, Georgia, and Carolina, Vera Cruz and Madras - - - - -	190
Meteorological Register, Madras, 1848 - - - - -	191
Report of Mr. Finnie, 20 January 1849 - - - - -	193

PROCEEDINGS OF DR. WIGHT—*continued.*

	PAGE
Court of Directors to Government of Fort St. George, 18 July (No. 7) 1849	195
Ditto - - - ditto - - - 15 March (No. 8) 1848	196
Government of Fort St. George to Court of Directors: Discontinuance of Experiments, 20 June (No. 32) 1849	196
Dr. Wight to Secretary to Government Fort St. George, 21 December 1848	196
T. J. Finnie, Esq. to Dr. Wight, 6 November 1848	198
Dr. Wight to T. J. Finnie, Esq., 15 November 1848	199
Extract; T. J. Finnie, Esq. to Dr. Wight, 26 October 1848	201
H. Fleming, Esq. to Dr. Wight, 15 October 1848	201
Dr. Wight to Secretary to Government Fort St. George, 31 January 1849	202
T. J. Finnie, Esq. to Dr. Wight, 18 December 1848	202
Dr. Wight to T. J. Finnie, Esq., 30 January 1849	205
Minute of the President, Sir H. Pottinger, 4 May 1849	209
Memorandum by Secretary to Government, 11 May 1849	211
Minute by Sir H. Pottinger, 12 May 1849	212
„ the Honourable Mr. D. Elliott, 12 May 1849	213
„ „ Mr. H. Dickinson, 14 May 1849	213
Minutes of Consultation, 1 June 1849	213
Dr. Wight to Secretary to Government, Fort St. George, 11 June 1849	216
Minutes of Consultation, 29 June 1849	218
Dr. Wight to Secretary to Government Fort St. George, 20 Aug. 1848	219
Ditto - - - ditto - - - 20 March 1849	220
Circular of Dr. Wight regarding the Mode of Cultivation of American Cotton, 20 March 1849	221
Meteorological Register Madras, 1848	225
Ditto of Foreign Cotton-growing Districts	225
Monthly Register of Rain	225
Court of Directors to Government of Fort St. George: The Experiments to be continued, 5 Sept. (No. 12) 1849	226
Government of Fort St. George to Court of Directors: Resumption of Duties by Dr. Wight, 13 Nov. (73) 1849	229
Dr. Wight to Secretary to Government Fort St. George, 6 Nov. 1849	231
Court of Directors to Government of Fort St. George: Allowances of Dr. Wight; 25 April (No. 4) 1851	231
Government of Fort St. George to Court of Directors: Dr. Wight's Recommendation for the Purchase of all American Cotton at a fixed rate, 5 June (No. 26) 1852	232
Dr. Wight to Secretary to Government Fort St. George, 20 April 1852	232
C. J. Bird Esq., Collector of Tinnevely, to Dr. Wight, 20 April 1852	233
Minute of President, Sir H. Pottinger, 17 May 1852	233
„ the Honourable Mr. Thomas, 19 May 1852	234
Resolution of Government, 1 June 1852	234
Government of Fort St. George to Court of Directors, reporting Results of the Experiments, 8 July 1852	234
Dr. Wight to Secretary to Government Fort St. George, 12 May 1852	235
Minute of President Sir H. Pottinger, 28 June 1852	242
„ the Hon. Mr. Thomas, 30 June 1852	242
Resolution of Government, 6 July 1852	243
Government of Fort St. George to Court of Directors, 7 August (No 39) 1852	243
Dr. Wight to Secretary to Government Fort St. George, 15 July 1852	243
W. Robinson, Esq., Head Assistant, Malabar, to Dr. Wight, 1 July 1852	245
Memorandum of Secretary to Government Fort St. George, 29 July 1852	245
Minute of President Sir H. Pottinger, 30 July 1852	246
„ the Hon. Mr. Thomas, 2 August 1852	246
Supply of New Orleans Seed per “Brazilian,” and its Distribution	246
Court of Directors to Government of Fort St. George: Approval of Resolution not to purchase American Cotton at a fixed rate; and of the relinquishment of Operations, and withdrawal of direct interference of Government with the Trade, 20 July (No. 3) 1853	247
Government of Fort St. George to Court of Directors (Extract) 1 November No. 76) 1853	248
Correspondence on Measures for bringing the Operations to a close, Distribution of Seed, &c.	249

PROCEEDINGS OF MR. FINNIE, AMERICAN PLANTER, IN THE EXPERIMENTAL
CULTURE AND CLEANING OF COTTON.

	PAGE
Government of Fort St. George to Court of Directors - - - - -	259
Adjustment of Mr. Finnie's Allowances, 16 October (No. 15) 1847 - - -	259
Court of Directors to Government of Fort St. George, 19 January (No. 3) 1848 -	261
Government of Fort St. George to Court of Directors (Extract) 7 March (No. 17) 1847	262
T. J. Finnie, Esq. to Secretary to Government Fort St. George: Necessity for co-operation of the People; Application for Sanction to undertake Private Agency, 20 June 1846 - - - - -	262
Objections to the Gin, and preference of the Churka and Thrasher - - -	267
Tabular Statement of Quantity cleaned in a day by one Thrasher and three Gins -	272
Government of Fort St. George to Court of Directors: Establishment of a Model Farm at Courtallum in Tinnevely, 3 September (No. 47) 1847 - - - - -	273
Government of Fort St. George to Court of Directors: Recommendation for the Depu- tation of Mr. Finnie to England, 17 January (No. 14) 1848 - - - - -	275
Court of Directors to Government of Fort St. George (Extract); negatived, 4 July (No. 11) 1848 - - - - -	276
T. J. Finnie, Esq. to Secretary to Government Fort St. George, complaining that Dr. Wight has misrepresented the motives and proceedings of the American Planters, 16 November 1847 - - - - -	276
T. J. Finnie, Esq. to Collector of Tinnevely, 12 April 1848 - - - - -	278
Report alluded to in the above, 23 September 1847 - - - - -	279
T. J. Finnie, Esq. to Mr. Secretary Thomas, with a Specimen of Churka-cleaned Cotton picked by hand, 24 May 1848 - - - - -	282
Minutes of Consultation requesting the Opinion of the Chamber of Commerce on the Sample, 10 June 1848 - - - - -	283
Collector of Tinnevely to Secretary to Government Fort St. George, 2 June 1848	284
T. J. Finnie, Esq. to ditto: Recommendation of a Patent Repeating Cotton Thrasher, with the Opinion of Native Cotton Cleaners, 28 March 1848 - - -	285
T. J. Finnie, Esq. to Secretary to Government Fort St. George: Necessity for improving the Indigenous Cotton rather than attempting the introduction of American, 31 May 1848 - - - - -	292
Dr. Wight to Secretary to Government Fort St. George: Objecting to Mr. Finnie's views; and also to his Estimate of the Value of his prepared Sample, 21 June 1848 - - - - -	293
James Ouchterlony, Esq., Chairman of the Chamber of Commerce: Valuation of Mr. Finnie's Sample, 28 June 1848 - - - - -	295
Minute of President Sir H. Pottinger, 15 July 1848 - - - - -	297
Minutes of Consultation, 27 July 1848 - - - - -	298
T. J. Finnie, Esq. to Secretary to Government Fort St. George: Application to extend his Operations to Coimbatore, 18 April 1849 - - - - -	300
Resolution of Government, confining them to Madura and Tinnevely, 16 May 1849 - - - - -	301
Close of Mr. Finnie's Operations - - - - -	301
OPERATIONS AT THE EXPERIMENTAL FARM ESTABLISHED BY MR. WROUGHTON,	
PRINCIPAL COLLECTOR OF COIMBATORE - - - - -	306
Supply of Seed to Tanjore - - - - -	317
CORRESPONDENCE REGARDING OBSTRUCTIONS OF THE CHAYROOT RENTERS TO THE OPERATIONS OF MR. LEES, AND HIS ENDEAVOURS TO IN- TRODUCE THE CULTIVATION OF AMERICAN COTTON INTO TINNEVELLY -	
	319
PROVISION OF IMPROVED MACHINERY.	
Shafts and Bevel-wheels for the Gin-house at Coimbatore - - - - -	335
Purchase of a 28-Saw Gin - - - - -	336
Purchase of Machinery from Mr. Whitehouse, at Jaffna, at the recommendation of Mr. Finnie: Erection of a Gin-house at Sevacausey (originally intended at Aroopocottah) and Purchase of an 18-Saw Gin - - - - -	337
Mr. Finnie's preference of the Churka to the Gin, and Opinion of Messrs. Arbuthnot & Co. - - - - -	364
Compound Lever Cotton Press, invented by Mr. Finnie - - - - -	366
Comparative Advantages of Cattle and Manual Labour applied to the Gins -	371
Provision of Cottage Saw-gins, and their disposal - - - - -	376

PROVISION OF IMPROVED MACHINERY—*continued.*

	PAGE
Report of Chamber of Commerce on the Cottage Saw-gin - - - -	383
Ditto of Dr. Wight on - - - - ditto - - - -	384
Application from Tanjore for Cottage Saw-gins, withdrawn; as they cut the Cotton - - - -	386
Application for "Dharwar Gins" for Bellary, recommended by the Collector of Dharwar, Mr. Bell: Report of Dr. Wight; his more extended Trials of the Cottage Gins - - - -	387
Application for Mr. Mather's Churkas. (See page 367 of the Bengal Section of this Return) - - - -	390

ACCOUNT SALES, WITH REPORTS, ON COTTON CONSIGNED FROM THIS PRESIDENCY TO ENGLAND.

Profit and Loss Account of Cotton, per "Elizabeth Jane" - - - -	392
Account of Sales of Cotton, per - - "Argyra" - - - -	396
Ditto - - - - "Ganges" and "Aurora" - - - -	399
Ditto - - - - "Dispatch" - - - -	405
Ditto - - - - "Morayshire" - - - -	406
Ditto - - - - "Cheverell" - - - -	409
Ditto - - - - "Llewellyn" - - - -	409
Ditto - - - - "Juliana" and "Trafalgar" - - - -	409
Ditto - - - - "Countess of Zetland" - - - -	413
Ditto - - - - "Aztec" - - - -	415
Ditto - - - - "Empress" - - - -	415
Ditto - - - - "Waterloo" - - - -	416
Ditto - - - - "Rubicon" - - - -	417
Ditto - - - - "Fairlie" - - - -	418
Ditto - - - - "Holyrood" - - - -	418
Ditto - - - - "Koh-i-Noor" - - - -	419

East India House, }
24 August 1857. }

(signed) J. S. Mill,
Examiner of India Correspondence.

SELECTION of PAPERS showing the Measures taken since 1847 to promote
the CULTIVATION of COTTON in INDIA.

II.
Madras.

— II. —

M A D R A S.

(No. 17 of 1848.)—(Revenue Department.)

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

1. WE have now the honour of replying to your Honourable Court's letter in this department, dated 10th November 1847, No. 25.*

* See page 1,
Part I. Bengal.

2. We furnished a copy of this despatch, with 20 copies of Dr. Royle's memo. on the culture of cotton in India which accompanied it, to the Board of Revenue, with a request that they would call upon the collectors to furnish concise replies to the queries of your Honourable Court.†

3. We also furnished copies to the officers noted in the margin‡ for similar information.

4. We take this opportunity to apprise your Honourable Court that we have already anticipated your wishes by our resolution of the 28th May 1847, founded on a minute recorded by our President on the 21st of the same month, copies of both which papers we have the honour to submit at the present opportunity, for more ready reference, and from which your Honourable Court will observe that with the view of having all the information available as to the causes which may affect the cotton trade of this Presidency, we called on the Board of Revenue to obtain, with as much accuracy as practicable, from the collectors of the principal cotton growing districts, details similar to those desired by your Honourable Court, but somewhat more complete in their character.

Rev. Cons., 28
May 1847, Nos.
88 to 89.

5. We also request your Honourable Court's special attention to a further minute recorded by our President on the receipt of your Honourable Court's despatch under acknowledgment.

Con., Jan. 1848,
No.

We have, &c.
(signed) *Tweeddale.*
H. Dickinson.
J. F. Thomas.

Fort St. George,
25 January 1848.

† Transmit 25 copies of Dr. Royle's memo. on cotton cultivation in India, also a series of queries on the same subject, to be circulated among the collectors of land revenue and the political agents resident in such native states as are known to produce cotton, with instructions to furnish concise replies to the same; Honourable Court being desirous of procuring information as to the extent to which India might be capable of supplying cotton, in the event of an increased demand for it either in England or elsewhere.

‡ Mr. Finnie, cotton planter; Dr. Wight, superintendent of cotton farms; resident of Travancore; and Cochin; Commissioner of Mysore.

MINUTE.

Guindy, 21 May 1847.

I CONSIDER it of importance that the Government should have before it all the information within its reach, as to the causes which may affect the cotton trade of this Presidency; I propose therefore to call on the Board of Revenue to ascertain, with as much accuracy as practicable, from the collectors of Tinnevelly, Madura, Bellary, Cuddapah, and Coimbatore, and from other districts in which cotton may be extensively cultivated, the following particulars :

1. The average price per lb. obtained by the ryot during the last five years for the different qualities of cotton, classifying the article as 1st, 2d, 3d quality.

2. The cost per lb. of raising this produce in ordinary seasons.

3. The items, or the several elements of that cost, and especially the ratio, the Government assessment, or the land tax, bears to the whole cost of production per lb. *Note.*—The average quantity raised on the acre, of soil of different qualities should be given; this average should be founded on the cycle of years, or seasons, as experienced in the district; the assessment on that acre, and an estimate of the other items of the cost of production.

4. The ordinary selling price per lb. obtained by the home or provincial merchant on the resale to the party purchasing for export; in other words, the estimated profits of the middleman, between the ryot and the exporter.

5. An estimate of the cost per lb. of the carriage of the cotton to the port of shipment, including the packing charges in the district.

If it can be given, an estimate of the probable per-centage of the loss done to the cotton by damage, in its transit from the land on which it is raised to the port of shipment.

The information desired should be given as fully as possible, and the result exhibited in a tabular form, in a statement similar to that annexed :

Cost of 1 lb. of (Tinnevelly) Cotton at the Port of Shipment in the Tinnevelly District, stated in English Currency.

Cotton of 1st quality.	Average Price obtained by the Ryot, or his Charge for growing per lb.; <i>i. e.</i> , Cost of Production.	Of this Charge the Amount paid by him as Assessment on the Land, or the Government Tax.	Middleman's Charge or Profit per lb.	Cost per lb. of Transit to the Port.	Estimated Loss by Damage done to the Cotton in Transit.

It is observed that it has been roughly estimated, that upon the cotton laid down at Bombay, the land tax amounts to $1\frac{1}{2}$ d. per lb., the cost of carriage to $\frac{1}{2}$ d. to $\frac{3}{4}$ d. per lb.

(signed) Tweeddale.

Revenue Department.

(No. 646.)

EXTRACT from the Minutes of Consultation, under date 28 May 1847.

Read the following Papers.

Minute by the Most Noble the President.

[Here enter 21st May 1847, No. 699.]

Para. 1. The most Noble the Governor in Council, considering it of importance that the Government should have all the information within reach, as to the causes which affect the cotton trade of this Presidency, resolves to call on the Board of Revenue to ascertain, with as much accuracy as practicable, from the

the collectors of Tinnevely, Madura, Bellary, Cuddapah, and Coimbatore, and from other districts in which cotton may be extensively cultivated, the following particulars :

1st. The average price per lb. obtained by the ryot during the last five years, for the different qualities of cotton, classifying the article as 1st, 2d, 3d quality.

2d. The cost per lb. of raising this produce in ordinary seasons.

3d. The items or the several elements of that cost, and especially the ratio, the Government assessment, or the land tax, bears to the whole cost of production per lb. *Note.*—The average quantity raised on the acre of soil of different qualities should be given, and this average should be founded on the cycle of years or seasons, as experienced in the district, the assessment on that acre, and an estimate of the other items of the cost of production.

4th. The ordinary selling price per lb. obtained by the home or provincial merchant on the resale to the party purchasing for export ; in other words, the estimated profits of the middleman between the ryot and the exporter.

5th. An estimate of the cost per lb. of the carriage of the cotton to the port of shipment, including the packing charges in the district.

6th. If it can be given, an estimate of the probable per-centage of the loss on the cotton by damage in its transit from the land on which it is raised to the port of shipment.

2. The information desired above should be given as fully as possible, and the result exhibited in a tabular form, in a statement similar to that annexed :

Cost of 1 lb. of (Tinnevely) Cotton at the Port of Shipment in the Tinnevely District, stated in English Currency.

Cotton of 1st Quality.	Average Price obtained by the Ryot, or his Charge for growing per lb. ; <i>i. e.</i> , Cost of Production.	Of this Charge the Amount paid by him as Assessment on the Land, or the Government Tax.	Middleman's Charge or Profit per lb.	Cost per lb. of Transit to the Port.	Estimated Loss by Damage done to the Cotton in Transit.

3. His Lordship in Council observes, that upon the cotton laid down at Bombay, it has been roughly estimated that the land tax amounts to $1\frac{1}{2}d.$ per lb., and the cost of carriage from $\frac{1}{2}d.$ to $\frac{3}{4}d.$ per lb.

(signed) *H. C. Montgomery,*
Secretary to Government.

MINUTE.

I WOULD draw the attention of the Honourable Court to the proceedings of the Government, Extract Minutes of Consultation, 28 May 1847, in which similar information, but more complete in its character, was required by the Government.

I had subsequently laid before me many of the returns made to the Board of Revenue, under the orders of Government, but they were so contradictory, and evidently framed upon data, and forming information, on which no reliance could be placed. I think the Court should be apprised that the information they require is not obtained with that accuracy which would justify any conclusion being drawn from it.

(signed) *Tweeddale.*

II.
Madras.

From Surgeon *R. Wight*, Superintendent Cotton Farms, Coimbatore, to
Sir *H. C. Montgomery*, Bart., Secretary to Government, Fort St. George.

Sir, Coimbatore, 17 March 1848.

ADVERTING to Minute of Consultation, No. 54, under date 14 January 1848, I have the honour to annex replies to the queries of the Honourable Court of Directors. These, with two exceptions, being derived from the record of this office, may, so far as they go, be relied upon, as very nearly correct.

The first exception refers to the concluding clause of the 2d question, namely, the price at which the ryot sells his cotton, "with advances." This I cannot answer from my own knowledge, but have set down what I am told.

The second refers to the concluding query, namely, the quantity of land under cotton cultivation, and the extent to which it may be enlarged in the event of an increased demand. My reply to that question is a mere estimate, based, I fear, on imperfect, or probably erroneous data. I was informed, by an extensive cotton merchant, since dead, that about seven lacs of rupees worth of cotton was in average years exported from the district of Coimbatore. That statement forms the basis of my calculation. Assuming that that sum may be an approximation to the truth, and that 40 rupees the candy may be assumed as the average price of the whole, then $7,00,000 \div 40$, gives 17,500 as the number of candies of cleaned cotton exported. About four and a half candies of seed cotton are required to produce one of clean, $17,500 \times 4.5 = 78,750$ candies of seed cotton; which, reduced to pounds, at 500 to the candy, is 3,93,75,000. That sum, divided by 200, the presumed, but low average, produce per acre, for all descriptions of soils, gives 1,96,875 acres, about 307½ square miles of surface, as the quantity of land cultivated to provide the cotton required for exportation. The produce of probably about one-third of that area must be added for consumption within the district, making a total of about 400 square miles appropriated to the cultivation of cotton in this district. The total area of Coimbatore is stated to be 8,392 square miles. If, therefore, this calculation is an approximation to the truth, it follows that only one 21st part of its extent is appropriated to cotton cultivation, a sum that I believe might be trebled, without in the slightest degree interfering with the adequate supply of food for the inhabitants; even though, according to the census of 1830-31, they are stated to amount to the high figure of 8,55,000, a number which, judging from appearances, I should think considerably in excess of the truth, one person to six acres over a large tract of country being, I believe, considered a moderately dense population, while that of Coimbatore appears a thin one.

Adverting to Dr. Royle's observations which accompany the Court's despatch, there is one subject, rather indirectly alluded to, but which seems to merit attention here, as I think some misunderstanding exists regarding it; I allude to the remarks on the mode of cleaning cotton, whether by the churka or saw gin.

All the planters seem to attach much importance to the superiority of the latter machine; so much, indeed, that one would almost suppose they think the action of the saws improves the staple of the cotton cleaned by it, even in opposition to almost incessant complaints of brokers, of the staple being "cut in ginning." It must be self-evident to every one, that neither the length nor strength of the fibre can be improved by the machine employed to separate it from the seed, however much it may be deteriorated; and the violent rapid action of the same is much more liable to produce the latter effect than the slow and gentle one of the churka. In this point of view, therefore, apart from rapidity and cheapness of execution, the churka seems the better machine of the two; but it may, and no doubt will, be asked why, that being the case, gin-cleaned cotton fetches a higher price in the English market, by nearly ¼d. per pound. This question I am unable to answer, but suspect it is because it looks better, and because the relative merits of cleanly well-picked gin and churka-cleaned cotton have not been tested by sufficiently carefully conducted comparative experiments. In the case of leafy, ill-picked cotton, Dr. Royle's observations show that the gin is an unsuitable machine, owing to its pulverising the larger fragments of leaf, inextricably mixing the particles with the fibre.

One decided advantage which the gin possesses over the churka, which I have no where seen noticed, merits consideration. The fibre of really good healthy cotton is so strong, that it sustains but little injury from the saw in ginning; but

but in wet seasons, when the plant becomes unhealthy, and the cotton partially rots in the pod, when thus deteriorated it is weak, and gets so seriously "cut" in ginning, that it won't spin, and is only fit for wadding and such like purposes. The churka produces no such effect, so that worthless cotton cleaned by it may appear good, and deceive an unwary purchaser. This can scarcely happen when cleaned by the gin; but still further to guard against such an accident, which might tend to lower the character of our cotton in the market, I have reduced to "second sort" much good-looking cotton, but deteriorated in the pod by the unusually abundant and protracted rains of the closing months of last year.

(signed) *Robert Wight*,
Surgeon, Superintendent Cotton Farms.

QUERIES.—1. What is the price of cotton freed from seed at the principal mart or marts in your districts?

REPLIES.—As sold to us at the gin-house during the last two years, the prices have fluctuated between 40 and 48 Company's rupees per candy of 500 lbs.

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?

As sold to us at the gin-house during the last two years, the prices of uncleaned cotton have fluctuated between Co.'s Rs. 11. 8 and Rs. 15. 8 per candy of 500 lbs. without advances; with advances it is reported to fluctuate between Co.'s Rs. 9. 8 and 11 rupees per candy of 500 lbs.

3. What is the expense of cleaning cotton by churka or foot roller, or by any other method which may be in use?

The expense of cleaning a maund of 25 lbs. of purty or seed cotton by the churka varies from 1 anna to 1½ anna, at which rate to clean one candy of cotton wool by the churka will cost from Co.'s Rs. 5. 10 to 7 rupees. As this mode of cleaning has only been tried by me to a limited extent, I offer these rates as approximations rather than actual results.

4. What are the expenses of conveying cotton to the nearest port for shipment?

The average charge for conveying Government cotton from Coimbatore to Cochin, and paying shipping expenses, is about Co.'s Rs. 2. 10 per bale of 300 lbs., viz., Rs. 2. 2 bandy hire, and 8 annas boat hire and shipping charges. The cost of carriage to Madras is from 18 to 20 Company's rupees per bandy load of 1,000 lbs.

5. What is the average produce of cotton per beega, or acre?

An English acre of good black soil produces from 250 to 300 lbs. of native seed cotton; an acre of red (munnul) sandy soil produces from 150 to 200 lbs.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried in the event of an increased demand?

Estimated to amount to 2,56,000 acres; and, if that estimate is pretty nearly correct, it seems that at least three times the extent might be so appropriated without interfering with the adequate production of food for the inhabitants, especially now that the Mexican cotton has been introduced, as it succeeds well on lands but indifferently suited for the culture of native cotton.

(See preceding letter.)

(signed) *Robert Wight*,
Surgeon, Superintendent Cotton Farms.

(No. 360.)

ORDERED, that the foregoing letter be brought to the notice of the Honourable the Court of Directors with reference to their Revenue Despatch, No. 25, dated 10th November 1847.

Fort St. George,
6 April 1848.

(signed) *J. D. Bourdillon*,
Officiating Secretary to Government.

(No. 69 of 1848.)—(Revenue Department.)

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

1. In para. 4 of our letter, No. 17, dated 25th January 1848, your Honourable Court were informed that, with the view of ascertaining the causes affecting the cotton trade of this Presidency, we had, at the suggestion of our late President, and previous to the receipt of your Honourable Court's despatch of the 10th November 1847, called for information from the collectors of the cotton-growing districts on points connected with its production.

Cons., 9 Nov.
1847, Nos. 58, 59,
reported in letter
to the Hon. Court,
14 Feb. 1848,
No. 18, para. 2.

2. The information originally obtained from the collectors of the districts named in the margin* being erroneous, fresh returns have been supplied, the general results presented in which the Board of Revenue regard to be a fair approximation to the truth, and these we have now the honour to lay before your Honourable Court.

Diary to Cons.
Sept. 1848.

3. It will be observed that the extent of land under cotton culture where the information is given appears to be the greatest in Bellary, viz., 2,09,577 acres; in Tinnevely it is 91,667 acres; in Cuddapah 79,942; Coimbatore 79,260; in Kurnool and Tanjore there was comparatively but little land under this description of cultivation, viz., 11,358 and 5,694 acres respectively. For Guntoor and Madura the information is not given.

4. The cost of cultivating a pound of indigenous cotton of the best quality, inclusive of the assessment of the land, ranges from 1*a.* 3*p.* 7*c.* to 11 pies, the highest being in Tinnevely the lowest in Guntoor; the cost per pound of cotton, when brought to the place of export, ranges from 2*d.* 3½*f.* to 1*d.* 2½*f.*; the proportion of land-tax, with the exception of Guntoor and Cuddapah, is much under 1*d.* in the pound, and the loss occurring during transit is calculated to range from 2 to 8 and 8½ per cent., according to circumstances and season.

5. It does not appear, either from the present or former papers, to what extent cotton is cultivated on rent-free lands. In the Ceded Districts, and indeed in other cotton-growing countries, Enam lands are extensive; and it may be well inferred that a considerable portion of the cotton exported is the produce of land paying no revenue to Government. Some inquiry into this part of the subject seemed desirable, and the attention of the Board of Revenue has been directed to it.

6. On the whole, we are of opinion that it is not a reduction of the tax on cotton lands that is chiefly required, but improvement of the internal communications, and encouragement on the part of the purchasers towards the production in the market of the better description of cotton carefully cleaned. Indeed, in your recent despatch of the 4th July 1848, No. 11, your Honourable Court have declined to countenance any remission of the tax on land appropriated to the culture of American cotton as forcing a factitious cultivation; and we have of late years had, and continue to have in view, the improvement of the local communications.

7. We informed the Board of Revenue that we expected to receive from them at an early date the replies to the queries prepared by Dr. Royle, received with your Honourable Court's despatch of the 10th November 1847, No. 25.

We have, &c.

Fort St. George,
19 September 1848.

(signed) *Henry Pottinger.*
G. H. F. Berkeley.
D. Elliott.

* Tanjore, Madura, Tinnevely, Guntoor, Cuddapah, Bellary, Coimbatore, Kurnool.

(No. 383.)

II.
Madras.

To J. F. Thomas, Esq., Chief Secretary to Government.

Sir,

Para. 1. IN their letter to Government, under date the 21st of October last, replying to an extract from the Minutes of Consultation of the 28th of May preceding, in which certain information was called for regarding the cultivation, &c. of cotton in those districts under this Presidency in which it was most extensively produced, the Board took occasion, when submitting the correspondence which had then passed on the subject, to observe that the returns furnished by the local authorities exhibited, in many instances, such marked discrepancies, both with regard to production and price of the article, that they deemed it desirable to refer the matter for further consideration. The collector's replies* having now been received, I am directed by the Board of Revenue to forward them for submission to the Right honourable the Governor in Council.

BOARD
OF REVENUE.

2. The annexed statement drawn up in the form contained in their proceedings,† dated 14th October 1847, which accompanied the letter to Government above adverted to, exhibits in abstract the revised results supplied in these several letters.

+ Copy submitted
to Government,
21 Oct. 1847.

Cotton, 1st Sort, per lb.	Tanjore.	Guntoor.	Coimbatore.	Cuddapah.	Bellary.	Madura.	Tinnevelly.	Kurnool.
	<i>A. p. c.</i>	<i>A. p. c.</i>	<i>A. p. c.</i>	<i>A. p. c.</i>	<i>A. p. c.</i>	<i>A. p. c.</i>	<i>A. p. c.</i>	<i>A. p. c.</i>
1. Cost of Cultivation -	- 8½ -	- 3 -	- 8 ⁶ / ₁₀ -	- 3 29 -	- 5 50 -	- 9 93 ³⁴ / ₆₄ -	- 11 97 -	1 - -
2. Assessment -	- 6 -	- 8 -	- 4 ¹³ / ₁₀ -	- 9 21 -	- 5 90 -	- 5 90 ⁴¹ / ₆₄ -	- 3 90 -	- 3 ⁴ / ₄ -
3. Ryot's profit -	- 5 -	- - 50 -	- 3 ⁹ / ₁₀ -	- 2 48 -	- 11 40 * Less 16 -	- - 69 ³⁰ / ₆₄ -	- 1 14 -	1 - ³ / ₄ - * Less 3 ³ / ₄ -
Price obtained by ryot -	1 7½ -	- 11 50 -	1 4 ¹² / ₁₀ -	1 2 98 -	- 11 24 -	1 4 53 ⁶¹ / ₆₄ -	1 5 1 -	1 - -
4. Middleman's profit -	- 3 ³ / ₄ -	- - 50 -	- 6 ⁶ / ₁₀ -	- - 57 -	- - 64 -	- 4 20 ³⁹ / ₆₄ -	- - 84 -	- 3 -
5. Cost of transit -	- - 1 ⁵ / ₈ -	- 1 -	- 2 ⁵ / ₁₀ -	- 2 88 -	- 6 16 -	- 2 85 ³¹ / ₆₄ -	- 1 61 -	- 2½ -
TOTAL costs and charges of 1 lb. of cotton at port of export -	1 11 -	1 1 -	1 7 ⁷ / ₁₀ -	1 6 43 -	1 6 4 -	1 11 60 ³⁷ / ₆₄ -	1 7 46 -	1 5½ -

* A mere estimate to cultivate cotton exhibits a loss in Bellary and Kurnool, but by employing his own cattle, labour and people, a ryot saves almost the whole which constitutes his profit.

AN ACRE of Land is estimated to be capable of producing,—

						Cleaned.	Uncleaned.
						<i>Lbs. oz.</i>	<i>Lbs.</i>
Tanjore	1st Sort -	-	-	-	-	60 0	240
	2d " -	-	-	-	-	50 0	200
	3d " -	-	-	-	-	30 0	120
Guntoor	-	-	-	-	-	45 0	—
Coimbatore	-	-	-	-	-	61½ 0	—
Cuddapah	-	-	-	-	-	50 0	—
Bellary	1st Sort -	-	-	-	-	59 9	—
	2d " -	-	-	-	-	46 5	—
	3d " -	-	-	-	-	33 1	—
Madura	-	-	-	-	-	- -	316 ³ / ₁₀
Tinnevelly	1st Sort -	-	-	-	-	106½ 0	—
	2d " -	-	-	-	-	75½ 0	—
	3d " -	-	-	-	-	43½ 0	—
<i>Mds. lbs.</i>							
Kurnool	1st Sort -	-	-	-	- 9 3 or -	- - -	228
	2d " -	-	-	-	- 6 9½ -	- - -	159½
	3d " -	-	-	-	- 4 8½ -	- - -	108½

* From Guntoor, 10th in Cons., 28th February 1848; from Bellary, 6th in Cons., 13th April 1848; from Cuddapah, 24th February in Cons., 2d March 1848; from Kurnool, 31st December 1847, in Cons., 20th January 1848; from Tanjore, 21st December 1847, in Cons., 20th January 1848; from Madura, 10th in Cons., 17th January 1848; from Tinnevelly, 24th December 1847, in Cons., 20th January 1848; from Coimbatore, 6th in Cons., 20th January 1848.

II.
Madras.

EXTENT of Land under Cotton Culture.

		Acres.	g.	as.	
Tanjore	Best land	327	0	0	
	Medium	3,225	0	0	
	Inferior	2,142	0	0	
		5,694	0	0	
Coimbatore		79,260	31	3	{ As per Jummah-bundy accounts.
Cuddapah					
Cuddapah	Best land	46,360	0	0	
	Medium	21,965	0	0	
	Inferior	11,617	0	0	
		79,942	0	0	
Bellary		209,577	0	0	
Tinnevelly	1st Class	36,059	3	11	
	2d	25,942	18	15	
	3d	29,666	8	2	
		91,667	30	12	
Kurnool		11,358	14	1	

Guntoor and } The extent of land is not stated in the Collector's report.
Madura }

3. On comparing the former and present statements, it will be seen that in the districts of Tanjore, Guntoor, and Coimbatore, no change has been deemed necessary in the results originally furnished, but that in the remaining districts named, the first returns exhibit modifications which assimilate the general results to a standard, which may be received as a fair approximation to the truth.

4. Under the entry of cost of cultivation the returns still exhibit somewhat anomalous results. The cost of raising a pound of cotton in Guntoor, is entered at only 3 pies, whereas the same quantity raised in Kurnool is estimated to cost one anna, or four times that sum. The data, however upon which the agent in Kurnool appears to have based his calculations are stated in his report to be of doubtful accuracy. The cost of cultivation in Tinnevelly and Madura form a strong contrast with the same item in Cuddapah; but if to the cost of cultivation the further element of charge, viz., the ratio of Government assessment, be added, it will be seen that the general result throughout the whole of the districts quoted exhibits less discrepancy. The highest rate being that obtaining in Tinnevelly, where the joint cost of cultivation and assessment per lb. amounts to As. 1. 3. 87. and the lowest being in Guntoor, only 11 pies.

5. As regards the price obtained by the ryots, the present returns show that in Tanjore, Madura, Coimbatore, Cuddapah, and Tinnevelly, the average difference is only about one pice and a half, and in the remaining districts, that difference is a little more than one-eighth of a pice.

6. The prices obtained by the grower in Guntoor and Bellary are nearly on a par, being also the lowest in the scale. The produce of the former district is, however, represented by the collector as an inferior article, unsuited to the European market, and consequently commanding no export value; whereas in Bellary the decrease in the value as compared with other districts, would appear as the result of the extensive augmentation of the culture of cotton within the last few years, which has produced a corresponding fall in the price.

7. The

7. The estimates of produce per acre now furnished are sufficiently consistent, the highest, it will be seen, being that quoted for Tinnevely. As a general average, it is stated that the ratio of cleaned to uncleaned produce is about 25 per cent. only of the latter. This would appear to be in some degree caused by the indiscriminate mixture of all descriptions of cotton, which is so universally adopted by the ryots with a view to effect the sale of their entire produce. The several pickings which the crop undergoes before the whole is gathered produce different qualities of cotton, but the advantage which might be derived from keeping distinct the superior from the inferior article, does not seem from the generality of the reports now submitted, to receive that attention from the growers which it is so desirable to introduce for an article destined for the European market; all distinctions as regards the classification of the article into different rates of quality are ultimately lost sight of under this objectionable system. A further deterioration is represented as taking place, from the frequent practice which obtains among the ryots of raising different kinds of produce on the same ground on which the cotton is sown, in view to realise a more profitable return from the land. The consequence of this mode of culture appears to be, that the cotton is prejudiced both in colour and quality.

8. The extent of land subjected to cotton cultivation has been added in the above statement, as far as the present returns furnish the particulars. As regards the mode on which cotton is conveyed to the port of shipment, the present information goes to show that where the roads are available for bandies, preference is given to that means of transport over bullocks, which are more expensive, and seem generally to be employed, when the less costly description of conveyance is not available. The loss sustained during transit was noted in the original returns as ranging from 2 to 8 and 8¼ per cent., dependant chiefly on the liability to more or less injury from exposure to rain or damp.

9. The total cost per lb. at the place of export in British currency, with the proportion borne as land tax, is exhibited in the subjoined statement :

	Total Cost, including Land Tax.			Land Tax.		
	Pence	f.	cents.	Pence	f.	cents.
Tanjore - - - - -	2	3	50	-	3	-
Guntoor - - - - -	1	2	50	1	-	-
Coimbatore - - - - -	2	1	71 ⁵⁶ / ₆₄	-	2	40 ⁴⁰ / ₆₄
Cuddapah - - - - -	2	1	21 ³² / ₆₄	1	-	60 ³² / ₆₄
Bellary - - - - -	2	1	2	-	2	95
Madura - - - - -	2	3	81 ⁴³ / ₆₄	-	2	95 ²⁰ / ₆₄
Tinnevely - - - - -	2	1	73	-	1	95
Kurnool - - - - -	2	-	75	-	-	37 ³² / ₆₄

Revenue Board Office, Fort St. George,
24 July 1848.

(signed) T. Pycroft,
Secretary.

To T. Pycroft, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

Para. 1. I HAVE the honour to acknowledge the receipt of the extract from the Board's proceedings of the 14th October 1847, commenting upon the returns respecting the cultivation and price of cotton, received in reply to the Board's circular, dated the 10th of June of that year. The Board observe that the returns exhibit results irreconcilable with each other, and call for fresh returns, together
296—Sess. 2. B with

GUNTOOR.

II. Madras.

with the data on which they are founded. In his letter of the 23d December Mr. White requested that these proceedings might receive early attention.

2. As in this district the season for picking and sale of cotton is during the next three months, I intended to wait till then for the purpose of procuring correct returns of the actual outturn of certain fields; but as the Board are urgent for my reply I shall not longer detain it.

3. I had anticipated the course prescribed by the Board, and ordered the Naib Serishtadar to furnish accounts of actual fields of cotton within his charge. This he did just after I had despatched my letter of 3d July 1847. The results thus arrived at did not differ from those already reported, and therefore no alteration appeared necessary in the latter.

4. On examining the entries extracted in the Board's proceedings, I would venture to remark that the discrepancies are not too great to be accounted for consistently with facts.

5. First, as regards the produce of cotton per acre. This is given for Madura at 223 lbs.; but, as the Board observe, this must include the seed. Taking of this the usual proportion of one-fourth as clean cotton, we have 55½ lbs., and this remarkably agrees with the produce of the best land in other districts, as shown in the margin. Forty-six for Tanjore appears, like 45 for Guntoor, to be the medium crop of all descriptions of land. The only difficulty therefore remains as regards Tinnevely, where the best ground is returned capable of yielding 106 lbs. per acre; probably this is Bourbon cotton, the cultivation of which has been brought to much perfection. The low entry for Kurnool of 28 lbs. is probably from the lowest class of land, which in Guntoor is estimated to yield 25 lbs.

Cuddapah	- 62½
Bellary	- 62½
Coimbatore	- 61½
Guntoor	- 60

	Price Got by Ryot.		Price at Place of Export.	
	Rs. a.	p.	Rs. a.	p.
Tanjore	- 1	7½	- 1	11
Tinnevely	- 1	7 ⁶ / ₁₀₀	- 1	10 ²³ / ₁₀₀
Cuddapah	- 1	2 ⁹⁵ / ₁₀₀	- 1	6 ²³ / ₁₀₀
Bellary	- 1	1 ⁶⁸ / ₁₀₀	- 1	6 ⁹ / ₁₀₀
Coimbatore	- 1	4 ⁵ / ₂	- 1	7 ⁷ / ₁₆
Guntoor	- 11	50 ⁵⁰ / ₁₀₀	- 1	1
Kurnool	- 11		- 1	2

6. Next, as regards the price at the place of export. It will be seen that between the cotton of Tanjore and Tinnevely there is a difference of less than half a pice per lb.; in that of Cuddapah, Bellary, and Coimbatore, the difference is very little more. In the price of the cotton of Guntoor and Kurnool there is a difference of one pice. I explained that the cotton of Guntoor is an inferior description, and unsuited to the European market; probably Kurnool cotton resembles it. Madura certainly exhibits an anomaly; but this may perhaps be accounted for by the calculation being made throughout for uncleaned cotton.

7. To me, therefore, the returns seem to afford internal evidence of tolerable accuracy.

(signed) H. Stokes, Collector.

Guntoor Zillah, Collector's Cutcherry,
Rollepara, 19 February 1848.

To T. Pycroft, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

Para. 1. IN acknowledging the receipt of your letter of the 9th ultimo, calling for the further information required by the Board in their proceedings of the 14th October last, respecting cotton cultivation, I regret that, having been occupied, almost without assistance, in the settlement of the district, the delay has been unavoidable.

2. To meet the Board's injunction, pointed out in para. 3 of their Proceedings under reply, I have called on the talsildars of the six cotton talooks noted in the margin, for satisfactory statements, to be carefully formed on proper data, and the accompanying is the talookwar abstract of the information they have collected. This abstract comprises the return in each acre of best, ordinary, and common description of land, with the respective costs, such as the expenses incurred for cultivation, for other purposes, and for payment to the circar; also the result, whether profit or loss, generally experienced by the cultivator.

3. In the statement above referred to, it will be observed that the costs and return in each acre includes both cleaned cotton and its seed, and I therefore
here

1. Bellary.
2. Adonie.
3. Goollem.
4. Punchapollem.
5. Gooty.
6. Tudputry.

BELLARY.

here annex a figured statement explaining the proportion of the costs and return, as far as it relates to the cleaned cotton. Vide Columns 2, 3, 17, and 18 of the accompanying statement, No. 1.

ITEMS.	Detail of Produce and of Expenditure.	Quantity and Value of Produce in an Acre of Land, as well as the Cost thereof.				Price of 1 lb. of Cotton at which the Ryot sells, and the Expense incurred by him.			
		In 1st Sort Land.	In 2d Sort Land.	In 3d Sort Land.	Average.	Of 1st Sort Land.	Of 2d Sort Land.	Of 3d Sort Land.	Average.
		3.	4.	5.	6.	7.	8.	9.	10.
		Lbs. oz. dr.	Lbs. oz. dr.	Lbs. oz. dr.	Lbs. oz. dr.	Lbs. oz. dr.	Lbs. oz. dr.	Lbs. oz. dr.	Lbs. oz. dr.
Produce as per columns 2 and 3 in the State- ment at page 14	Quantity - - -	59 9 0	46 5 0	33 1 0	46 5 0	—	—	—	—
	Value - - -	Rs. a. p. 3 7 11	Rs. a. p. 2 11 5	Rs. a. p. 1 15 —	Rs. a. p. 2 11 5	As. p. c. 11 24	As. p. c. 11 24	As. p. c. 11 24	As. p. c. 11 24
Expenditure as per col- umns 17 and 18 in the Statement at page 15	Expense of cultivation or actual cost	1 11 3	1 8 —	1 4 10	1 8 —	5 50	6 22	7 56	6 22
	Circar tax - - -	1 13 6	1 3 3	11 6	1 4 1	5 90	4 98	4 16	5 20
	TOTAL - - -	3 8 9	2 11 3	2 4	2 12 1	11 40	11 20	11 72	11 42
Difference between the value of produce and the cost	Profit - - -	—	— 2	—	—	—	— 4	—	—
	Loss - - -	— 10	—	— 1 4	— 8	— 16	—	— 48	— 18

It may be stated, every item of costs being estimated, that the result is a loss to the cultivator, but properly speaking, the ryot saves for himself a great portion, being labour of himself, his cattle, and people. Moreover, it will be observed, that as the best description of land yields an ample return, the costs in the two other (low and lowest) descriptions of land are very high compared with the quantity they respectively yield.

4. The Board further advise me to collect particular information as to whether there is any difference between the quality of cotton plucked in the first, second and last courses, and whether these pluckings are kept distinct from each other, as also to state any other cause which may seem to affect the value of the cotton. As far as I am informed, the cotton is plucked at three times during the period of two months when the buds or pods begin to ripen, the two first gatherings yielding a great portion, whilst the last one is deficient; there is very little difference in the quality of these three pluckings. With regard to the circumstances affecting the cotton culture, I am not aware of any but the season (good and bad), as for instance, the season of the present year unfavourable for cotton, owing to the failure of rain at the period the seeds should be sown, the price is accordingly high. I also ascribe the fall in the price of cotton to the increased culture of this staple article within the last few years, as noted in the margin.*

When

	Circar and Enam Land.
	Acres.
* Estimate framed by Mr. Chaplin, in Fusly 1221	1,70,958
Ditto by Mr. Robertson, in Fusly 1234	1,87,627
Actual cultivation in Fusly 1245	2,22,308
" " " 1251	2,31,406
" " " 1252	2,45,713
" " " 1253	2,37,093
" " " 1254	2,60,536
" " " 1255, in which no rain abundantly fell	2,09,577
	Rs. a. p.
Price of cotton for a maund of this country:—	
In Fusly 1222	3 1 —
" 1229	3 12 —
" 1236	3 15 —
" 1243	3 — —
" 1250	1 10 —
At present	1 7 5

II.
Madras.

When inquiring into the cause why the cotton fields have so enormously augmented, it is stated, that in consequence of the small demand for other grains the ryots have been driven to this culture. The zillah now yields a greater quantity, and at the same time at a reduced price. Nevertheless the ryots in general prefer the cotton which has a ready demand at any time they may offer to sell, whilst on the other hand, the sale of grain is attended with much difficulty in procuring a purchaser, and from being so bulky and heavy is very expensive and cumbersome to convey from one market to another.

5. Cotton of this district is chiefly sent to two places, namely, to Wallajapett (near Arcot), and to the sea-port at Coomtah, in Canara. To the former place it is exported by the merchants of this district, and from thence it is understood that it is conveyed by purchasers to the port at Madras. I beg to annex a brief account as abstracted from the statement of cotton dealers trading to the first place. It exhibits the costs of conveyance, the rate at which the article is sold there, and the profit usually met with in the traffic.

I T E M S.	Average for a Maund of 25 lbs.			Average for a lb.		
	For Wallajapett.	For Coomtah.	Average.	For Wallajapett.	For Coomtah.	Average.
	1.	2.	3.	4.	5.	6.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p. c.	Rs. a. p. c.	Rs. a. p. c.
Price at which the ryot sells -	1 7 5	1 7 5	1 7 5	- - 11 24	- - 11 24	- - 11 24
Charges incurred by the Merchants who export the article:						
CARRIAGE HIRE:						
Carriage hire - - -	- 6 8	- 7 6	- 7 1	- - 3 20	- - 3 60	- - 3 40
Pay of Gomastah accompanying the articles - - -	- 2 7	- 2 1	- 2 4	- - 1 24	- - 1 -	- - 1 12
Price of cumbalies for packing up, as well as packing charge	- 1 1	- 1 4	- 1 2	- - - 52	- - - 64	- - - 58
Fee payable to the brokers, &c., at the place in which the sale is effected - - -	- - 8	- - 10	- - 9	- - - 32	- - - 40	- - - 36
Miscellaneous or sundry charges	- - 3	- - 2	- - 3	- - - 12	- - - 8	- - - 10
Total carriage hire - -	- 11 3	- 11 11	- 11 7	- - 5 40	- - 5 72	- - 5 56
Damages, &c. - -	- - 5	- 2 1	- 1 3	- - - 20	- - 1 -	- - - 60
TOTAL - - - Rs.	- 11 8	- 14 -	- 12 10	- - 5 60	- - 6 72	- - 6 16
Total value and expense - -	2 3 1	2 5 5	2 4 3	- 1 4 84	- 1 5 96	- 1 5 40
Price at the place where produced - - - -	2 8 4	2 6 8	2 7 6	- 1 7 36	- 1 6 56	- 1 6 96
Net profit - - - -	- 5 3	- 1 3	- 3 3	- - 2 52	- - - 60	- - 1 56
Centage of profit on the price at which the ryot sells - -	22 3 -	5 4 -	13 11 -	22 3 - -	5 4 - -	13 11 - -

The export to Coomtah is always on saddle cattle, bullocks and buffaloes, the road not being as yet available for carts, whilst to Wallajapett carts are invariably employed.

6. The Board require to be informed of the rate of assessment on the several qualities of black land, and the extent cultivated with cotton. The Board are aware that the several sorts of land of this district are assessed according to quality, and an established remission of one-fourth allowed. It will therefore suffice for me state the particulars of the regud, or black cotton soil. This land amounts to 10,37,634 acres, (Circar Ayacut,) and consists of 92 dects, as determined at the survey; the highest being assessed at Rs. 9. 14. 8., and the lowest at seven pice per acre. The enam ayacut will amount to about six lacs of acres, and it consists of as many dects as the circar land, thus amounting in all to sixteen lacs of acres. Of this, one-half, or eight lacs, was under actual cultivation at the time of the survey, whilst it is now augmented to ten lacs, including, of course, the enam sag. Of the above total, a little more than one-half is available for cotton culture; but it must be observed, that cotton is not continually sown in one and the same field, change being always preferred. The actual cultivation of this article does not amount in any one year to more than 2,60,000 acres. Out of the aggregate extent of the regud, the waste amounts to six lacs of acres.

7. In conclusion, I must observe, that the statement now sent differs in every item from the last, and the Board will find that this arises from a general average on a much more extended scale having been taken.

(signed) A. Mellor, Collector.

Bellary District, Collector's Office,
On Circuit Ramundroog, 6 April 1848.

STATEMENT showing the COTTON PRODUCTION in an Acre of First, Second, and Third Sorts

Sorts of Land.	NUMBER and NAMES of TALOOKS.	Product in an Acre.						Cost of Expenditure.				
		Cotton.		Seed.		Total Production or Value in Columns 3 and 5.	Cost of Husbandry.			Amount of Circar Tax.	Total Cost or Expenditure.	
		Quantity.	Value.	Quantity.	Value.		Cost for Cultivating.	Other Expenditure such as plucking Cotton from Plants, separating from the Raw Cotton, Fees to Villagers, and the Price of Seeds.	TOTAL.			
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.		
First Sort	1. Bellary	Lbs. oz. dr. 62 8 0	Rs. a. p. 3 9 6	Lbs. oz. dr. 187 8 0	Rs. a. p. - 15 -	Rs. a. p. 4 8 6	Rs. a. p. - 15 9	Rs. a. p. 1 11 -	Rs. a. p. 2 10 9	Rs. a. p. 2 4 9	Rs. a. p. 4 15 6	
	2. Adonie	59 15 0	3 8 5	79 13 0	1 - 5	4 8 10	- 13 6	1 7 6	2 5 -	3 - -	5 5 -	
	3. Goollem	56 4 0	2 13 -	163 12 0	1 2 -	3 15 -	- 12 9	1 4 5	2 1 2	2 8 -	4 9 2	
	4. Punchapollem	62 8 0	3 12 -	187 8 0	- 15 -	4 11 -	- 14 5	1 8 3	2 6 8	2 3 -	4 9 8	
	5. Gooty	56 4 0	3 6 -	168 12 0	1 2 -	4 8 -	- 11 6	1 1 9	1 13 3	2 8 -	4 5 3	
	6. Tadputry	59 14 0	3 14 5	179 10 0	1 5 7	5 4 -	- 11 1	1 6 4	2 1 5	2 - -	4 1 5	
	TOTAL	357 5 0	20 15 4	1,071 15 0	6 8 -	27 7 4	4 15 -	8 7 3	13 6 3	14 7 9	27 14 -	
	AVERAGE	59 9 0	3 7 11	178 11 0	1 1 4	4 9 3	- 13 2	1 6 6	2 3 8	2 6 8	4 10 4	
Second Sort	1. Bellary	51 9 0	2 15 5	154 11 0	- 12 4	3 11 9	- 15 9	1 7 2	2 6 11	1 8 6	3 15 5	
	2. Adonie	44 13 0	2 10 4	134 14 0	- 12 4	3 6 8	- 13 6	1 3 4	2 - 10	2 - -	4 - 10	
	3. Goollem	42 12 0	2 2 -	127 10 0	- 13 7	2 15 7	- 12 9	1 - 2	1 12 11	1 8 -	3 4 11	
	4. Punchapollem	46 14 0	2 13 -	140 10 0	- 11 3	3 8 3	- 14 5	1 2 7	2 1 -	1 1 6	3 2 6	
	5. Gooty	46 14 0	2 13 -	140 10 0	- 15 -	3 12 -	- 11 6	- 15 6	1 11 -	1 13 2	3 8 2	
	6. Tadputry	44 13 0	2 14 10	134 14 0	1 - 2	3 15 -	- 11 1	1 1 4	1 12 5	1 8 -	3 4 5	
	TOTAL	277 11 0	16 4 7	833 5 0	5 - 8	21 5 3	4 15 -	6 14 1	11 13 1	9 7 2	21 4 3	
	AVERAGE	46 5 0	2 11 5	138 14 0	- 13 5	3 8 10	- 13 2	1 2 4	1 15 6	1 9 2	3 8 8	
Third Sort	1. Bellary	40 10 0	2 5 4	121 14 0	- 9 9	2 15 1	- 15 9	1 3 4	2 3 1	- 13 1	3 - 2	
	2. Adonie	30 3 0	1 12 2	90 10 0	- 8 3	2 4 5	- 13 6	- 15 4	1 12 10	1 - -	2 12 10	
	3. Goollem	28 11 0	1 7 -	85 15 0	- 9 2	2 - 2	- 12 9	- 11 10	1 8 7	- 12 -	2 4 7	
	4. Punchapollem	31 4 0	1 14 -	93 12 0	- 7 6	2 5 6	- 14 5	- 13 -	1 11 5	- 9 4	2 4 9	
	5. Gooty	37 8 0	2 4 -	112 8 0	- 12 -	3 - -	- 11 6	- 13 2	1 8 8	1 8 -	3 - 8	
	6. Tadputry	30 3 0	1 15 3	90 10 0	- 10 10	2 10 1	- 11 1	- 12 4	1 7 5	1 - -	2 7 5	
	TOTAL	198 7 0	11 9 9	595 5 0	3 9 6	15 3 3	4 15 -	5 5 -	10 4 -	5 10 5	15 14 5	
	AVERAGE	33 1 0	1 15 -	99 3 -	- 9 7	2 8 7	- 13 2	- 14 2	1 11 4	- 15 1	2 10 5	
Average	1. Bellary	51 9 0	2 15 5	154 11 0	- 12 4	3 11 8	- 15 9	1 7 2	2 6 11	1 8 10	3 15 9	
	2. Adonie	44 13 0	2 10 4	134 14 0	- 12 4	3 6 8	- 13 6	1 3 4	2 - 10	2 - -	4 - 10	
	3. Goollem	42 12 0	2 2 -	127 10 0	- 13 7	2 15 7	- 12 9	1 - 2	1 12 11	1 9 4	3 6 3	
	4. Punchapollem	46 14 0	2 13 -	140 10 0	- 11 3	3 8 3	- 14 5	1 2 7	2 1 -	1 4 7	3 5 7	
	5. Gooty	46 14 0	2 13 -	140 10 0	- 15 -	3 12 -	- 11 6	- 15 6	1 11 -	1 15 -	3 10 -	
	6. Tadputry	44 13 0	2 14 10	134 14 0	1 - 2	3 15 -	- 11 1	1 1 4	1 12 5	1 8 -	3 4 5	
	TOTAL	277 11 0	16 4 7	833 5 0	5 - 8	21 5 3	4 15 -	6 14 1	11 13 1	9 13 9	21 10 10	
	AVERAGE	46 5 0	2 11 5	138 14 0	- 13 5	3 8 10	- 13 2	1 2 4	1 15 6	1 10 4	3 9 10	

For a Maund of this country, weighing 25 lbs. - - - 25 lbs. - - - Rs. 1. 7a. 5p.

Bellary District, Collector's Office, on Circuit,)
Ramandroog, 6 April 1848. }

of Land, and the Cost thereof, in different Talooks of the Bellary Division of the Ceded Districts.

Difference between Columns 6 and 11.		Proportion of Cotton and its Seed.								
Profit.	Loss.	Centage of Columns 3 and 5 on Column 6.			Detail of Cost in Column 11 on the Proportions of the Expenses for Cotton and Seed, calculated on their Value respectively.					
		Centage of the Value of Cotton in Column 3 on Column 6.	Centage of the Value of Seed in Column 5 on Column 6.	TOTAL.	For Cotton.			For Seed.		
					Proportion of Expense.	Circar Tax.	TOTAL.	Proportion of Expense.	Circar Tax.	TOTAL.
12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
- - -	- 7 -	-	-	-	-	-	-	-	-	-
- - -	- 12 2	-	-	-	-	-	-	-	-	-
- - -	- 10 2	-	-	-	-	-	-	-	-	-
- 1 4	-	-	-	-	-	-	-	-	-	-
- 2 9	-	-	-	-	-	-	-	-	-	-
- 2 7	-	-	-	-	-	-	-	-	-	-
- - -	- 6 8	-	-	-	-	-	-	-	-	-
- - -	- 1 1	76 6 -	23 10 -	100 - -	1 11 3	1 13 6	3 8 9	- 8 5	- 9 2	1 1 7
- - -	- 3 8	-	-	-	-	-	-	-	-	-
- - -	- 10 2	-	-	-	-	-	-	-	-	-
- - -	- 5 4	-	-	-	-	-	-	-	-	-
- 5 9	-	-	-	-	-	-	-	-	-	-
- 3 10	-	-	-	-	-	-	-	-	-	-
- 10 7	-	-	-	-	-	-	-	-	-	-
- 1 -	-	-	-	-	-	-	-	-	-	-
- - 2	- - -	76 6 -	23 10 -	100 - -	1 8 -	1 3 3	2 11 3	- 7 6	- 5 11	- 13 5
- - -	- 1 1	-	-	-	-	-	-	-	-	-
- - -	- 8 5	-	-	-	-	-	-	-	-	-
- - -	- 4 5	-	-	-	-	-	-	-	-	-
- - 9	-	-	-	-	-	-	-	-	-	-
- - -	- - 8	-	-	-	-	-	-	-	-	-
- 2 8	-	-	-	-	-	-	-	-	-	-
- - -	- 11 2	-	-	-	-	-	-	-	-	-
- - -	- 1 10	76 6 -	23 10 -	100 - -	1 4 10	- 11 6	2 - 4	- 6 6	- 3 7	- 10 1
- - -	- 4 -	-	-	-	-	-	-	-	-	-
- - -	- 10 2	-	-	-	-	-	-	-	-	-
- - -	- 6 8	-	-	-	-	-	-	-	-	-
- 2 8	-	-	-	-	-	-	-	-	-	-
- 2 -	-	-	-	-	-	-	-	-	-	-
- 10 7	-	-	-	-	-	-	-	-	-	-
- - -	- 5 7	-	-	-	-	-	-	-	-	-
- - -	- 1 -	76 6 -	23 10 -	100 - -	1 8 -	1 4 1	2 12 1	- 7 6	- 6 3	- 13 9

II.
Madras.

To *T. B. Roupell*, Esq., Acting Secretary to the Board of Revenue,
Fort St. George.

Sir,

CUDDAPAH.

Para. 1. I HAVE the honour to acknowledge the receipt of extract from the Proceedings of the Board of Revenue, under date 14th October 1847, requiring me, with reference to my letter, dated 28th August last, regarding the cultivation of cotton in this district, to submit a fresh return, together with the data on which it is founded, those received from the several collectors of the districts therein mentioned, in reply to the Board's circular, dated 10th June 1847, exhibiting results both with regard to production and price of the article that are quite irreconcilable with each other.

2. I have the honour, in conformity with the above requisition, to report the result of a further inquiry that has minutely been entered into on this important subject, with a view to the actual facts connected therewith being collected from the different parts of the district in which cotton is principally cultivated, and to the most accurate information being obtained regarding the present condition of the cotton trade, agreeably to the observations contained in the above extract from the Board's Proceedings.

3. Fresh returns in detail having been required from the several tahsildars, the information contained in the accompanying Statement A. has been collected from their replies, and from every other source procurable on the several points on which the Board have dwelt.

4. For the facility of calculation, the result as to the production and price of the article raised in one gorroo, or eight acres of land, has been estimated and entered in this statement, the lands having been classified under the heads of best, medium, and inferior; the particulars of the costs and charges actually incurred in the cultivation of cotton, in the above-mentioned extent of these different descriptions of soil in different localities of the district; the amount derived by the cultivator from the sale of cotton seed; the assessment leviable on these lands respectively in respect to quality and the net profit derived by the ryot, have also been entered; and from this statement has been deduced a calculation, as therein exhibited, showing the average* quantity of cotton that is produced in each acre, and the price thereof per lb.

5. The following statement affords the information required with reference to the concluding part of para. 3 of the extract from the Board's Proceedings under reply.

6. Statement showing the assessment in the different descriptions of cotton land, and the probable extent of land of each description under cultivation.

Fuslies.	Best Sort of Cotton on Black Land.		Medium on Mixed Lands.		Inferior on Red Dry Lands.		Inferior on Wet Lands, &c.		TOTAL.	
	Acres.	Assessment.	Acres.	Assessment.	Acres.	Assessment.	Acres.	Assessment.	Acres.	Assessment.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
		<i>Rs.</i>		<i>Rs.</i>		<i>Rs.</i>		<i>Rs.</i>		<i>Rs.</i>
1251 - -	58,128	93,452	20,442	23,340	10,623	11,153	148	1,077	89,341	1,29,022
1252 - -	54,829	88,817	20,040	22,136	10,582	10,585	168	1,169	85,649	1,22,707
1253 - -	50,136	79,505	18,086	20,723	9,302	9,454	120	862	77,644	1,10,544
1254 - -	54,793	86,652	18,861	20,923	10,240	11,241	157	1,195	84,051	1,20,011
1255 - -	54,647	84,766	19,314	21,351	9,985	10,486	215	1,243	84,161	1,17,846
TOTAL - -	2,72,533	4,33,192	96,743	1,08,473	50,732	52,019	808	5,546	4,20,816	6,00,130
Average - -	54,506	86,638	19,349	21,695	10,146	10,584	162	1,109	84,163	1,20,026
1256 - -	46,360	79,226	21,965	25,324	11,237	12,057	380	2,813	79,942	1,19,420

* Quantity of cotton produced in an acre, eight maunds. Price of cotton per lb. *Rs.* 1. $2\frac{28}{100}$.

7. The produce of a field of medium and inferior soils is 20 and 40 per cent. respectively less than that raised on lands of the best description, as one acre of best soil will produce ten maunds of cotton, while the same extent of medium and inferior soils yields eight and six maunds respectively. The above remarks as to quantity produced in an acre of these different descriptions of soil apply to cotton which has not been cleansed or separated from the seed; the quantity that remains after the cotton has undergone this process is one-fourth of the whole; consequently the produce per acre of cleansed cotton may be estimated at varying from two and a half to one and a half maunds, dependent on the nature of the soil.

8. Cotton is picked three or four times in this district, and at each picking the quality is somewhat superior to that obtained at each succeeding picking, being cleaner and less intermixed with particles of dried husks, and dry friable leaves of the plant. In like manner the quantity picked at first exceeds that obtained at subsequent pickings. The pickings are not kept distinct, but are mixed together; a practice however objectionable, as it is adopted by the cultivators under the impression (as they have several of them informed me) that the cotton, more or less damaged from having been picked at the end of the season less carefully than on former occasions, would not find a ready sale unless mixed up with the rest of better quality.

9. Cotton is generally classified into two sorts; the white being the first, the red or coloured the second sort. The former is cultivated in the fine black soils, and to some extent in the red and mixed lands, while the latter is rarely cultivated in the superior description of soil. When any difference exists as to the quality of the red cotton from that usually produced, from whatever cause arising, the same is reckoned as third sort.

10. This staple article has been sold for the last five fuslies in the different parts of the district at the average price of from 39 to 36 rupees per candy of 500 lbs.

11. The present want of regular local markets for the cultivators will probably, now that the demand for cotton appears to be so great, be supplied by the encouragement afforded to exporters in this country by the English market, thereby at the same time occasioning increased and remunerative production; and the abolition of the imposts of this article will, under existing circumstances, materially benefit the cotton trade of the country.

12. Adverting to the information required in regard to the actual cost of the transit, whether by carts or bullocks, to the nearest port of shipment, I beg to state that, from every inquiry I have made on the subject, I am given to understand that the price paid by merchants for bandies engaged for the conveyance of goods to the Presidency is 12 annas for every 10 miles, and that a bandy load consists of 40 maunds, or two candies. A bullock is not capable of carrying generally on the average more than eight maunds, and as it appears that the hire of a bullock for the same distance is four annas, the mode of conveyance is greatly in favour of bandies; and it is needless to observe that, as persons wishing to convey goods for exportation make their own arrangements with owners of bandies, how very desirable it is that the cost of transit should be reduced by the presence of a good high road to Madras, the nearest port of shipment at which goods are exported, instead of one, as it now is, almost impassable for carts; additional charges are also incurrible (which must be added to the costs of transit) for gunny and for weighing and packing the cotton, and these are estimated at three rupees for every candy of 20 maunds.

13. On a reference to the abstract statement annexed to the Board's proceedings under reply, it is observed that the cost of cultivation in this district is entered at 2*p.* 91 *c.* per lb., while in Bellary it is 7*p.* 24 *c.* This apparent discrepancy in the results so exhibited is however readily and satisfactorily accounted for by the price of the seed being in this district more than double what it is in Bellary, owing to the cultivation of this description of product being proportionally carried on to a greater extent in the latter district, the

II.
Madras.

amount realised in the sale of which seed has, in the returns previously submitted, been deducted from the actual cost of production. It has been ascertained, on a reference made, that in Bellary *Rs.* 2. 0. 6. is the computed net cost of production incurrible in each acre of land, and from this has been deduced the calculation as entered in the return made from that district, the acre being considered to yield on the average 50lbs.

14. The cost of cultivation per acre in Bellary is *Rs.* 2. 12. 6., the amount realised on the sale of seed, at the rate of 10 maunds per rupee ; for $7\frac{1}{2}$ maunds (the quantity estimated as procurable from cotton produced in an acre) is 12 annas, which, deducted from the cost of production, leaves a balance of *Rs.* 2. 0. 6. as above shown. The same quantity of cotton seed in this district sells for *Rs.* 2. 5. 4., and the price of $7\frac{1}{2}$ maunds, at this rate, would be *Rs.* 1. 12. 0., hence the net cost of production in this district would be proportionally less, as represented in the returns.

(signed) *J. H. Cochrane,*

Cuddapah District, Collector's Office,
on Circuit,
Koilgoontlah, 24 February 1848.

Collector.

No. 1.—STATEMENT showing the Quantity of Cotton produced, and the CHARGES of CULTIVATION, &c., in the Zillah of Cuddapah, as per Accounts received from different Talooks.

Estimated quantity of Cotton produced, and its Value :-	Quantity of Cotton produced in One Gorroo or Eight Acres of Land, and Cultivating Charges, &c.					Average Quantity of Cotton produced in One Acre of Land, and the Cultivating Charges, &c.					Value of First Sort Cotton per lb., together with the Cultivating Charges in detail.	
	Quantity . . .	Quantity of Cotton produced in Best Land.	Quantity of Cotton produced in Medium Land.	Quantity of Cotton produced in Inferior Land.	Total Quantity produced.	Average.	Quantity of Cotton produced in Best Land.	Quantity of Cotton produced in Medium Land.	Quantity of Cotton produced in Inferior Land.	Total Quantity produced.		Average.
		2.	3.	4.	5.	6.	7.	8.	9.	10.		11.
1.												12.
{	1. Cotton, at one maund of 25 lbs.	20	16	12	48	16	2½	2	1½	6	2	Rs. a. p. cents.
	2. Cotton seeds, at one maund of 25 lbs.	60	48	36	144	48	7½	6	4½	18	6	—
	TOTAL	80	64	48	192	64	10	8	6	24	8	—
{	3. Average rate of price of Cotton per candy of 20 maunds each of 25 lbs. within the last five years	Rs. a. p. 39 - -	Rs. a. p. 29 9 7	Rs. a. p. 21 9 7	Rs. a. p. 90 3 2	Rs. a. p. 30 1 1	Rs. a. p. 4 14 -	Rs. a. p. 3 11 2	Rs. a. p. 2 11 2	Rs. a. p. 11 4 4	Rs. a. p. 3 12 1	- 1 2 98
	Viz. :-											
		Fusly 1252.	Fusly 1253.	Fusly 1254.	Fusly 1255.	Fusly 1256.	Average per Candy.					
{	First sort -	Rs. 39	Rs. 38	Rs. 38	Rs. 40	Rs. 40	Rs. 195	Rs. 39				
	Second sort	Rs. 37	Rs. 36	Rs. 36	Rs. 38	Rs. 38	Rs. 185	Rs. 37				
	Third sort -	Rs. 36	Rs. 35	Rs. 35	Rs. 37	Rs. 37	Rs. 180	Rs. 36				
{	4. Value of Cotton seeds above mentioned, at Rs. 4. 10. per 20 maunds each of 25 lbs.	14 - -	11 3 2	8 6 5	33 9 7	11 3 2	1 12 -	1 6 5	1 - 10	4 3 3	1 6 5	- - 5 37
	TOTAL	53 - -	40 12 9	30 - -	123 12 9	41 4 3	6 10 -	5 1 7	3 12 -	15 7 7	5 2 6	- 1 8 35

(continued)

No. 1.—STATEMENT showing the Quantity of Cotton produced, and the Charges of Cultivation, &c. in the Zillah of Cuddapah, as per Accounts received from different Talooks—continued.

	Quantity of Cotton produced in One Gorroo or Eight Acres of Land, and Cultivating Charges, &c.					Average Quantity of Cotton produced in One Acre of Land, and the Cultivating Charges, &c.					Value of First Sort Cotton per lb., together with the Cultivating Charges in detail.		
	Quantity of Cotton produced in Land.		Quantity of Cotton produced in Inferior Land.		Quantity of Cotton produced in Medium Land.		Quantity of Cotton produced in Land.		Quantity of Cotton produced in Inferior Land.			Quantity of Cotton produced in Medium Land.	
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.		
Charges for preparing the land ready for sowing.	4 - -	4 - -	4 - -	12 - -	4 - -	8 - -	8 - -	8 - -	1 8 - -	8 - -	1 53		
5. Hire for ploughing the land with eight yokes of bullocks, at eight annas per yoke	1 - -	1 - -	1 - -	3 - -	1 - -	2 - -	2 - -	2 - -	6 - -	2 - -	38		
6. Hire for levelling the land with "gorroo," with two yokes of bullocks, at eight annas per yoke	1 - -	1 - -	1 - -	3 - -	1 - -	2 - -	2 - -	2 - -	6 - -	2 - -	38		
7. Hire for harrowing with a goontekay with two yokes of bullocks, at eight annas per yoke	1 - -	1 - -	1 - -	3 - -	1 - -	2 - -	2 - -	2 - -	6 - -	2 - -	38		
8. Hire for sowing cotton seeds with a gorroo, including the bullocks and the coolies	1 - -	1 - -	1 - -	3 - -	1 - -	2 - -	2 - -	2 - -	6 - -	2 - -	38		
9. Hire for again levelling the ground after the seeds have been sown with one goontekay	8 - -	8 - -	8 - -	1 8 - -	8 - -	1 - -	1 - -	1 - -	3 - -	1 - -	19		
10. Hire for 16 men for weeding grass, &c., grown among the plants, at 1 a. 4 p. each	1 5 4	1 5 4	1 5 4	4 - -	1 5 4	2 8 - -	2 8 - -	2 8 - -	8 - -	2 8 - -	52		
11. Hire for three yokes of bullocks for weeding cotton crop with an instrument called "cuttaramitta goonekay," after it has advanced one month old	1 8 - -	1 8 - -	1 8 - -	4 8 - -	1 8 - -	3 - -	3 - -	3 - -	9 - -	3 - -	58		
12. Value of one maund of cotton seeds at 4 annas per each maund of 25 lbs.	1 4 - -	1 4 - -	1 4 - -	5 12 - -	1 4 - -	2 6 - -	2 6 - -	2 6 - -	7 6 - -	2 6 - -	48		
13. Hire for gathering 80 maunds of cotton from pods at one anna per maund	5 - -	4 - -	3 - -	12 - -	4 - -	10 - -	8 - -	6 - -	1 8 - -	8 - -	92		
14. If the above 80 maunds of cotton is separated from seeds, will reduce to 20 maunds, the remainder, 60 maunds, being seeds; and the hire for separating them is calculated at 1 a. 4 p. per maund	5 - -	4 - -	3 - -	12 - -	4 - -	10 - -	8 - -	6 - -	1 8 - -	8 - -	92		
15. Amount of fees or mara paid to the village curmums, &c.	1 - -	1 - -	1 - -	3 - -	1 - -	2 - -	2 - -	2 - -	6 - -	2 - -	38		
16. Total charges from 5th to 15th column	22 9 4	20 9 4	18 9 4	61 12 - -	20 9 4	2 13 2	2 9 2	2 5 2	7 11 6	2 9 2	8 66		
17. Deduct the profit derived by the ryots from the above 60 maunds of seeds, as mentioned in Col. 4	14 - -	11 3 2	8 6 5	33 9 7	11 3 2	1 12 - -	1 6 5	1 10 - -	4 3 3	1 6 5	5 37		
18. Net charges	8 9 4	9 6 2	10 2 11	28 2 5	9 6 2	1 1 2	1 2 9	1 4 4	3 8 3	1 2 9	3 29		
19. Add amount of assessment of land payable to government	24 - -	16 - -	8 - -	48 - -	16 - -	3 - -	2 - -	1 - -	6 - -	2 - -	9 21		
20. Total charges	32 9 4	25 6 2	18 2 11	76 2 5	25 6 2	4 1 2	3 2 9	2 4 4	9 8 3	3 2 9	1 50		
21. Net profit derived by the ryots as per rates mentioned in Column 3, after deducting above charges as per Col. 20	6 6 8	4 3 5	3 6 8	14 - 10	4 10 11	12 10 - -	8 5 - -	6 10 - -	1 12 1	9 4 - -	2 48		
Charges for sowing seeds, and also for other purposes, &c.													
Value of the seeds, hire for separating seeds from the cotton, &c.													
Fees to curmums, &c.													

Cuddapah District, Collector's Circuit Cutcherry, }
Koilgoontah, 24 February 1848.

(signed)

J. H. Cochran,
Collector.

To *D. White, Esq.*, Acting Secretary to the Board of Revenue, Fort St. George.

Sir,

Para. 1. I HAVE the honour to reply to the orders of your Board, dated the 14th October last, requiring further particulars of information respecting the cultivation of cotton in Kurnool.

KURNOOL.

2. In my communication of the 4th October last, I reported that the average quantity of cotton which it had been calculated was annually produced on one acre in this district was 28 lbs. Adverting to the Board's observations, I beg to mention that the quantity in question had reference to cleaned cotton. The average is exhibited at this low figure, owing to a considerable extent of soil of very unproductive powers in four of the eight talooks of the agency being planted with cotton, the produce of which has materially affected what would otherwise have been the average observable; for, on further reference to the statements which I received from the several amildars, I find that the average outturn for a year of the cleaned cotton crop of the better descriptions of ground varies very slightly from that which, according to the reports submitted to your Board, appears to be realised from an acre in the Bellary and Cuddapah districts.

Bellary	+ 62 $\frac{1}{2}$
Cuddapah	- 61 $\frac{1}{2}$
Kurnool	- 57

3. Adverting also to the quantity of cotton stated to be yielded by one acre of ground in the Madura collectorate, viz. 223 lbs., I find on reference to the reports before me, that the average produce of uncleaned cotton would in this district be 228 lbs. on the best kind of soil. The several other statements made in my address were based on the result of communications to the local amildars, who, I believe, exerted themselves to ascertain from the cotton cultivators of their respective talooks such facts as seemed best calculated to supply the information respecting a five years' average for which the Board had called.

4. I beg to add, that from subsequent inquiry I have ascertained that the average annual quantity of the best description of cotton produced on an acre of the best soil is 9 maunds 3 lbs.; of medium soil, 6 maunds 19 $\frac{1}{2}$ lbs.; of inferior soil, 4 maunds 8 $\frac{1}{2}$ lbs.

5. It is acknowledged that there is a difference between the quality of the cotton realised from the first, second, and third pickings; but ultimately the three sorts are mixed up together, a preference being given by the ryots to the cotton of the first picking, when selecting what it may be necessary to retain for household purposes. Occasionally in this district fourth and fifth pickings take place, which are disposed of without any reference to the more or less value of the cotton thus obtained, the same price being secured for the later as for the earlier pickings.

6. The residue left after the clearing of the three first-mentioned pickings is considered to be one-fourth; that of the occasional fourth and fifth pickings is less in quantity, being only one-sixth of the original crop.

7. As respects the facts regarding cost and charges actually incurred on a quantity of cotton in different localities, from which to deduce a calculation per lb., I regret that, in spite of my anxious desire to meet the Board's wishes on this point, I have not been enabled to procure data on which I can satisfactorily depend. When asked to declare what are in truth and reality the several items of expenditure involved in bringing any given crop of cotton to maturity from the time of first breaking ground, I find the ryots questioned are either unable or unwilling to furnish credible particulars. The ground has been ploughed at intervals, not entirely with their own cattle; they have now and then had the assistance of their neighbours' bullocks; at other times they have received the aid of ryots possessing cattle for hire, the payment of which is made, not in money, but by a share of the gross produce. A part only of any one field is sown with cotton; a part is cultivated with a different crop; or, if cotton has been sown on the whole of any one field, something else has been grown there too, thus rendering it impossible to calculate with precision and certainty what has been the actual cost of preparing particular fields for the

II.
Madras.

cotton sowing. The same difficulties have attended my inquiries respecting the definite value of a crop when arrived at maturity, and its eventual disposal to the cotton buyer. For these reasons I have been compelled to abandon, as a hopeless undertaking, the attempt to procure a statement of facts on which to found the information for which your Board has called. My best attention has, however, been given to the matter; and I beg to submit that, from the most careful inquiries which it has been in my power to make, I consider it may safely be assumed that the cost and charges incurred in raising a pound of cotton of the first sort are one anna; those on cotton of the second sort, 10 pice; and that, inclusive of the Government demand, these charges will be respectively increased to 1 anna 0 $\frac{1}{4}$ pice and 1 anna 0 $\frac{1}{2}$ pice.

Cost per lb.:

	a.	p.
1st sort	- 1	- $\frac{3}{4}$
2d sort	- 1	- $\frac{1}{4}$

Charge of trans-
port per lb.:
To coast by bandy,
2 $\frac{1}{4}$ p.
To coast by bul-
lock, 2 $\frac{3}{4}$ p.

8. The nearest port or place of export by sea for cotton grown in Kurnool would be Ramiapatam, or thereabouts, in the Nellore district; and the actual cost of transit by a bandy carrying 40, and a bullock 8 maunds of cotton, conveyed direct to that coast, would be 2 $\frac{1}{2}$ pice per lb.

9. As, however, the conveyance of cotton from this province by the most direct road to the coast would involve the necessity of transporting it along a difficult 20 miles of ghaut in the range of hills which divides the north-eastern portion of Kurnool from part of Cuddapah, I do not consider it probable that that line of transport will be generally adopted, unless the ghaut be made passable for bullock bandies; and until so important an improvement is effected, the present system of transmitting Kurnool cotton produce to Cuddapah, whence it finds its way to Madras, will doubtless be continued.

10. The central part of this district is about 287 miles distant from Madras, to which the cost of transit per lb. would be 4 pice.

11. In the absence of a distinct and recognised classification of soils under a regular turrumwar assessment, I regret my inability to state the amount of Government demand leviable on the different descriptions of cotton ground, and the probable extent of land of each description under cultivation; but, for your Board's information, I beg to annex a statement showing, for Fusly 1256, the aggregate quantity of land on which cotton was grown in this collectorate during that period, the sum total of the assessment realised thereon, and certain deductions from those data, which your Board may perhaps desire to have under view in a concise form.

(signed) H. D. Phillips,
Agent to the Governor.

Kurnool District,
Agent's Circuit Camp, Chaugalmurray,
31 December 1847.

STATEMENT of COTTON grown in Kurnool in Fusly 1256.

	Extent of Land Cultivated with Cotton.	Quantity of Clean Cotton produced.	Assessment of the Land Cultivated.	Cost of Production.	Total of Assessment and Cost of Production.	Average of Ditto per lb.	Amount of Sale Price realised by Ryots.	Average of Ditto per lb.	Profit to the Ryots per lb.	Loss to the Ryots per lb.	Average of Clean Cotton produced per Acre on all sorts of Soils.
	A. g.		C. Rs. a. p. 1st Sort, or White Cotton.	C. Rs. a. p.	C. Rs. a. p.	C. Rs. a. p.	C. Rs. a. p.	C. Rs. a. p.	C. Rs. a. p.	C. Rs. a. p.	Lbs.
1. Chagulmurry -	—	—	—	—	—	—	—	—	—	—	—
2. Seruel -	—	—	—	—	—	—	—	—	—	—	—
3. Nundial -	2,160 24	70,075	3,073 5 4	1,036 5 -	4,109 10 3	- 1 1 $\frac{1}{2}$	4,945 14 4	- 1 1 $\frac{1}{2}$	- 2 $\frac{1}{2}$	-	32 $\frac{5}{16}$
4. Pannium -	3,461 21 $\frac{13}{16}$	110,050	4,525 15 8	3,337 13 -	7,863 12 8	- 1 1 $\frac{1}{2}$	6,600 4 -	- 1 1 $\frac{1}{2}$	-	-	31 $\frac{1}{16}$
5. Dhone -	186 30 $\frac{1}{2}$	5,418	247 2 3	176 11 6	423 13 9	- 1 3	301 - 3	- 10 $\frac{3}{4}$	-	-	29 $\frac{1}{2}$
6. Goodoor -	864 39 $\frac{1}{2}$	23,737	1,038 6 3	545 12 -	1,584 2 3	- 1 $\frac{1}{2}$	1,426 13 -	- 11 $\frac{1}{2}$	-	-	27 $\frac{7}{16}$
7. Nundicootoor -	3,700 34 $\frac{1}{2}$	108,250	4,251 2 5	2,832 3 10	7,083 6 3	- 1 $\frac{1}{2}$	6,537 - 4	- 11 $\frac{1}{2}$	-	-	29 $\frac{1}{16}$
8. Atcoor -	983 24	25,678	929 13 7	973 13 -	1,903 10 7	- 1 2 $\frac{1}{4}$	1,540 11 -	- 11 $\frac{1}{2}$	-	-	26 $\frac{1}{8}$
TOTAL - -	11,358 14 $\frac{1}{16}$	343,208	14,065 13 5	8,902 10 4	22,968 7 9	- 1 $\frac{1}{2}$	21,351 10 11	- 1 -	-	-	30 $\frac{1}{4}$

(signed) H. D. Phillips,
Agent to the Governor.

To *D. White*, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

I HAVE the honour to acknowledge the receipt of extract from the proceedings of the Board, under date the 14th October, calling for further particulars regarding the cultivation, &c. of cotton in this district.

The entries in the statement forwarded with my letter of the 2d September refer throughout to "cleaned cotton," which bears to the uncleaned the proportion of one to four in value. The growth of cotton in Tanjore, as I have before remarked, is for home consumption only, the produce being expended in threads of sorts, lamp-wicks, &c., and as that superiority of quality, which alone would make articles saleable in a foreign market, is not aimed at by the growers for home consumption, but little pains are taken in the growth or cleaning of the cotton. To obtain the information required by the Board, all the chief growers of cotton were called on from 12 different talooks, and the result was that entered in my former statement; though from the little importance the cultivators attach to the cultivation in general, it was difficult to obtain satisfactory replies to the questions asked. As regards the mixture of the pickings, little or no attention appears to have been made to keep them separate, though the first picking is described as the main one, a second being very inferior, and a third not worth attention. In many instances cotton and other dry grains are sown together, when the former is only half attended to, and when mixed with other cotton renders the whole of less value. The marginal statement* gives the extent of the different sorts of land under cultivation, their produce, and the assessment on the same, while the statement formerly submitted shows the particulars of prices, cost of carriage, &c. obtained from the cultivators themselves, the correctness of which a subsequent inquiry has confirmed. I have, therefore, not forwarded a separate statement on these points.

Tanjore, Vullum, 21 December 1847. (signed) *J. F. Bishop*, Collector.

To *D. White*, Esq., Acting Secretary to the Board of Revenue,
Fort St. George.

Sir,

WITH reference to the proceedings of the Board of Revenue of the 14th October last, calling for more exact information relative to the cost and profit of the cultivation of cotton, I beg to state that I find it impossible to obtain the accurate details required by the Board at the present time.

2. The cotton crop is backward, owing to the sowing being impeded by heavy rains, and the harvest will not commence till the middle of February, nor finish till May; the result of the several pickings cannot therefore be ascertained by actual observation until the latter period, and that to be gained by questioning the ryots at present is very vague and unsatisfactory. I am informed that their record of the results of their farming operations is commonly very imperfect, and they do not communicate the data they possess with good will.

3. I had prepared a letter, therefore, to inquire whether the Board could wait for the report until after the picking season, which will close early in May: but

* COTTON LAND.	Extent in Acres.	Produce per Acre in Pounds.		Assessment per Acre in Rupees.
		Cleaned.	Uncleaned.	
Best land - - -	327	60	240	3
Medium - - -	3,225	50	200	2
Inferior - - -	2,142	30	120	1
TOTAL - - -	5,694			

II.
Madras.

but a further letter from the Board, requesting an immediate answer, being received as it was about to be dispatched, I now beg to forward a statement containing the result of the best information I could obtain.

4. The ryot's profit seems to be surprisingly small ; but as he is generally the actual cultivator, the wages of labour fall to him.

5. The proportion of seed to cotton wool was ascertained by actual experiment.

6. The price obtained by the ryot and that by the merchant was stated by a person of each of those classes.

Madura,
10 January 1848.

(signed) R. D. Parker, Collector.

No. 1.—MEMORANDUM of the Cost of COTTON cultivated, &c. in the *Madura* District.

DESCRIPTION.	Cost of Cotton Cultivated on an Acre of Land.			Cost of 1 lb. of Cotton.		
	1st Sort of Land.	2d Sort of Land.	3d Sort of Land.	1st Sort of Land.	2d Sort of Land.	3d Sort of Land.
	C.Rs. a. p. c.	C.Rs. a. p. c.	C.Rs. a. p. c.	C.Rs. a. p. c.	C.Rs. a. p. c.	C.Rs. a. p. c.
Cost of cultivation	* 3 15 - 32 $\frac{1}{4}$	3 15 - 32 $\frac{1}{4}$	3 15 - 32 $\frac{1}{4}$	- - 9 93 $\frac{81}{16}$	- - 9 93 $\frac{81}{16}$	- - 9 93 $\frac{81}{16}$
Assessment -	2 5 5 62 $\frac{1}{2}$	1 15 9 50	1 11 6 40 $\frac{10}{16}$	- - 5 90 $\frac{90}{16}$	- - 5 1 $\frac{1}{16}$	- - 4 34 $\frac{1}{16}$
TOTAL - -	6 4 5 94 $\frac{3}{4}$	5 14 9 82 $\frac{1}{4}$	5 10 6 72 $\frac{1}{16}$	+ 1 3 84 $\frac{91}{16}$	- 1 2 94 $\frac{11}{16}$	- 1 2 27 $\frac{9}{16}$
Price obtained by } ryots - - }	† 6 8 11 6 $\frac{103}{16}$	6 8 11 6 $\frac{103}{16}$	† - 1 4 53 $\frac{153}{16}$	- 1 4 53 $\frac{153}{16}$	- 1 4 53 $\frac{153}{16}$	- - -
Profit for ryots -	- 4 5 11 $\frac{143}{16}$	- 10 1 24 $\frac{63}{16}$	- 14 4 33 $\frac{93}{16}$	- - - 69 $\frac{123}{16}$	- - 1 59 $\frac{43}{16}$	- - 2 26 $\frac{63}{16}$

	C.Rs. a. p. c.
* Ploughing - - - - -	2 2 7 69 $\frac{3}{4}$
Seed - - - - -	- 1 5 3 $\frac{1}{8}$
Weeding - - - - -	1 1 3 78 $\frac{8}{16}$
Picking - - - - -	- 9 7 81 $\frac{1}{4}$
C.Rs.	3 15 - 32 $\frac{1}{4}$

+ Cleaned. The operation of cleaning is performed by the middleman, the price given by whom is distributed on the produce of an acre, after the seed has been removed, to obtain this result.

† Uncleaned.

DESCRIPTION.	Cost per Acre of Land.	Cost of 1 lb. of Cotton.	
	C.Rs. a. p. c.	C.Rs. a. p. c.	
Price paid to ryots by middle- } man - - - - - }	* 6 8 11 6 $\frac{103}{16}$	- 1 4 53 $\frac{153}{16}$	
Charges for cleaning cotton, &c.	† 1 11 3 12 $\frac{51}{16}$	- - 2 88 $\frac{123}{16}$	
TOTAL - - -	8 4 2 18 $\frac{15}{16}$	- 1 7 42 $\frac{3}{4}$	
Price of the cotton seed - -	† 1 4 9 81 $\frac{71}{16}$	- - 3 28 $\frac{21}{16}$	
Price of cleaned cotton - -	§ 8 1 1 29 $\frac{13}{16}$	- 1 8 35 $\frac{3}{16}$	
TOTAL - - -	9 5 11 11 $\frac{41}{16}$	- 1 11 63 $\frac{51}{16}$	
Profit of the middleman - -	1 1 8 92 $\frac{5}{16}$	- - 4 20 $\frac{23}{16}$	

	C.Rs. a. p. c.
+ Hire for cleaning -	- 12 3 7 $\frac{1}{8}$
Hire for carriage -	- 13 - -
Cloth, &c., for picking -	- 2 - 4 $\frac{7}{16}$
C.Rs.	1 11 3 12 $\frac{51}{16}$

* At 21 rupees for 3 podhees, equal to 54 tolam, or 1,012 $\frac{1}{2}$ lbs., the price of 316 $\frac{3}{16}$ lbs., the produce of an acre, is Rs. 6. 8. 11. 6 $\frac{103}{16}$.

† At Rs. 4. 2. 8. pr 40 tolam, or 750 lbs. of seed, the price for 234 $\frac{3}{16}$ lbs. is Rs. 1. 4. 9. 81 $\frac{71}{16}$.

§ At 53 rupees per 2 $\frac{3}{16}$ pothees, or 500 lbs., equal to one barom or candy, the price of 76 $\frac{1}{8}$ is Rs. 8. 1. 1. 29 $\frac{13}{16}$.

Madura,
10 January 1848.

(signed) R. D. Parker, Collector.

To *D. White*, Esq., Acting Secretary to the Board of Revenue, Fort
St. George.

Sir,

WITH reference to the observations contained in the extract from the Proceedings of the Board of Revenue, under date the 14th October last, I have the honour to forward a fresh return, showing in immediate connexion with that exhibited in the former, the result of my subsequent inquiries regarding the cost of production, and other particulars of information concerning cotton.

TINNEVELLY.

2. I beg leave also to send the accompanying letter from Mr. F. J. Finnie, American cotton planter in this district, showing forcibly the difficulties that are met with in obtaining accurate information of this kind from the natives of this country. My own impression is that every time an inquiry were made a different result would be obtained, and that if not checked by some previous knowledge, it might lead to the most erroneous results.

3. The data on which the present return is founded, is inquiries made at the Hoozoor, from certain selected cotton-growing ryots of several different talooks where the article is produced, rejecting information which was manifestly wrong. The chief value I put upon it is the approximation to the truth, which appears from concurrent testimony to have been obtained; in this point of view I think it better not to reject the result of former inquiries shown in the previous return altogether, but to test them as shown in the return and remarks now forwarded. The inquiry was of course not made by the lb., but on a large quantity, and in a measure with which the people are conversant, and then reduced to the rate per lb. as required.

4. As Mr. Finnie's report, so far as it goes, is the very best data I can procure, I beg to refer to it for the information required regarding the difference between the different pickings, which appear all equally good, with the exception of the very first gathering and the very last, as also for the quantity that remains after cleaning, which appears to be 25 per cent. when the churka is made use of, and 22 per cent. when the gin is the process used.

5. The extent of land cultivated with cotton in this district in Fusly 1256 (exclusive of the zemindaries from which no accurate accounts have been obtained), amounts to chains 25,208, as follows:—

	Chains.
1st. Class - - - - -	9,916
2d. Class - - - - -	7,134
3d. Class - - - - -	8,158

Tinnevely Collector's Office,
24 December 1847.

(signed) *F. B. Elton*,
Acting Collector.

No. 1.

PARTICULARS OF INFORMATION REQUIRED.	REPLIES TO THE SAME.	RESULT OF PRESENT INQUIRY.	REMARKS.
Column 1.	Column 2.	Column 3.	Column 4.
	Past Five Years' Average, price per Lb.		
	Rs. a. p. c.	Rs. a. p. c.	
1st.—The average price per lb. obtained by the ryot during the last five years for the different qualities of cotton, classifying the article as 1st, 2d, and 3d quality.	1st quality - - - 1 7 62 2d ditto - - - 1 6 78 3d ditto - - - 1 5 94 Assumed, on the talook of Sauttoor, the chief cotton-growing talook of the district.	1st quality - - - 1 5 1 2d ditto - - - 1 4 38 3d ditto - - - 1 3 75	This is the result of inquiry made at the hoozoor, from intelligent ryots of the two talooks of Sunkerainar-coil and Ottapedarum.
2d.—The cost per lb. of raising this produce in ordinary seasons.	1 a. 3p. 56c. cost per lb., as calculated in Fusly 1255, and which may be considered the ordinary charge.	1 a. 3p. 87c. cost per lb.	The former information in Column 2, as regards the items from 2d to 6th, was taken on all the eight cotton-growing talooks of the district; the present inquiry is confined to the four chief ones.
3d.—The items or the several elements of that cost, and especially the ratio the Government assessment or the land-tax bears to the whole cost of production per lb.	Items thereof: A. p. c. Ploughing - - - 3 80 Weeding by hand - - 1 36 Ditto - by digging - 2 28 Manuring - - - 5 36 1 - 80 Circar teerwah - - 2 76 1 3 56	A. p. c. Ploughing - - - 4 61 Weeding by hand - - 1 44 Ditto - by digging - 1 62 Manuring - - - 4 30 - 11 97 Circar teerwah - - 3 90 1 3 87	
Note.—The average quantity raised on the acre of soil of different qualities should be given, and this average should be founded on the cycle of years or seasons as experienced in the district, the assessment on that acre, and an estimate of the other items of the cost of production.	The Government assessment is * 21½ per cent. upon the whole cost above given. Average produce on an acre of 1st sort land, 106½ lbs. of cotton without seed; 2d sort land, 35½ ditto; 3d sort land, 31½ ditto. N.B. As it is impossible to obtain such minute information for a cycle of seasons, an ordinary year (being neither very good nor the contrary) has been made the basis of this average.	* 32½ per cent. 1st sort land, 106½ lbs., exclusive of seed; 2d sort land, 75½ ditto; † 3d sort land, 43½ ditto.†	* The Government assessment in Column 2 is the average taken on eight talooks, that in Column 3 is that taken on 4, which latter are the chief cotton-growing talooks of the district, where the assessment is higher. † In these instances the result of the present inquiry is to be preferred, because the produce of the 2d and 3d sorts of land formerly given are the outturn of inferior lands situated in another part of the district; whereas those now adopted are on second and third class lands in the same talooks as the 1st sort land.
	Government Assessment. For an acre of Rs. a. p. 1st sort land - - 1 5 - 2d - ditto - - - 9 11 3d - ditto - - - - (3	Government Assessment. For an acre of Rs. a. p. 1st sort land - - 1 7 9 2d - ditto - - - 14 6 3d - ditto - - - 10 2	
	Estimate of other items of the Cost of Production. Rs. a. p. Ploughing - - 1 4 - Weeding by hand - - 7 2 Ditto by iron instrument - - } - 12 - Manuring - - - 1 12 1 4 3 3	Estimate of other items of the Cost of Production. Rs. a. p. Ploughing - - 1 12 4 Weeding by hand - - 8 11 Ditto by iron instrument - - } - 9 11 Manuring - - - 1 10 4 4 9 6	

PARTICULARS OF INFORMATION
REQUIRED.Cost of 1 lb. of Tinnevelly Cotton at the Port of Shipment in the Tinnevelly District, stated
in English Currency, reckoning the Rupee at Two Shillings.

4th.—The ordinary selling price per lb. obtained by the home or provincial merchant, on the resale to the party purchasing for export; in other words, the estimated profits of the middle-man between the ryot and the exporter.

5th.—An estimate of the cost per lb. of the carriage of the cotton to the port of shipment, including the packing charges in the district.

Cotton of Quality.	Average Price obtained by the Ryot, or his Charge for Growing per Lb.; i. e., Cost of Production.	Of this Charge the Amount paid by him as Assessment on the Land or Government Tax.	Middle-Man's Charge, or Profit per Lb.	Cost per Lb. of Transit to the Port.	Estimated Loss by Damage done to the Cotton in Transit.
	s. d. F. cts.	s. d. F. cts.	Cts. of a Farthing.	Cents of a Farthing.	Per-centage
1st sort	- 2 - 93	- - 1 96½	42·	80 ½·	8 ½
2d ditto	- 2 - 51½	- - 1 85	42·	80 ½·	8 ½
3d ditto	- 2 - 10	- - * 2 54½	42·	80 ½·	8 ½
The assumed distance being the same, the cost of transit does not vary.					

* Third sort land being less productive, the assessment is higher in proportion.

Cost of 1 lb. of Tinnevelly Cotton at the Port of Shipment in the Tinnevelly District, stated
in English Currency, reckoning the Rupee at Two Shillings.

6th.—If it can be given, an estimate of the probable percentage of the loss on the cotton by damage in its transit from the land on which it is raised, to the port of shipment.

Cotton of Quality.	Average Price obtained by the Ryot, or his Charge for Growing per Lb.; i. e., Cost of Production.	Of this Charge the Amount paid by him as Assessment on the Land or Government Tax.	Middle-Man's Charge, or Profit per Lb.	Cost per Lb. of Transit to the Port.	Estimated Loss by Damage done to the Cotton in Transit.
	s. d. F. cts.	s. d. F. cts.	Cts. of a Farthing.	Cents of a Farthing.	Per-centage
1st sort	- 2 - 26	- - 1 18	42·	88 ⅝·	8 ½
2d ditto	- 1 3 75	- - 1 67	42·	41 ½·	7 ½
3d ditto	- 1 3 24	- - 1 34	42·	26·	7 ½
N.B.—The 1st sort of cotton comes from a greater distance.					

Tinnevelly Collector's Office,
24 December 1847.

(signed) F. B. Elton,
Acting Collector.

No. 2.

To F. B. Elton, Esq., Acting Collector, Tinnevelly.

Sir,

I HAVE the honour to acknowledge the receipt of your letter, No. 1096, enclosing an extract from the Proceedings of the Board of Revenue, requesting me to afford you such information as I can—"on accurate data." The little I can give you from my own knowledge of the subject I will vouch for.

2. I have been in the habit of trying to collect the precise "facts" which would afford the desired information, and I can bear testimony to one "fact," which is, that but little reliance is to be placed in any facts relating to land established by these people. The impossibility of arriving at any accurate data as to the actual produce and actual cost of cultivating any given quantity of land, is an established fact in my mind, after the most patient investigation. I have had statements of the cost of culture and value of product put down accurately, according to the details afforded by intelligent ryots, and when the debtor and creditor side was compared, the ryot was found to be a loser by a few rupees. On the absurdity of this statement being pointed out, they would acknowledge that they made a profit of (8) eight annas, or (1) one rupee; or, to give pleasure to the inquiring party, they often acknowledge whatever they think we wish confirmed.

3. In estimating the cost of the cultivation of anything in this country, it must be borne in mind that the poor ryot and his family do the work themselves and it costs them nothing, and they sell at a profit the grass they gather while working the crop. The richer ryot, who does not work himself, has numerous dependents who he merely feeds a little, and all grass that is gathered from the field during the cultivation goes to the bazar, or is consumed by his own cattle. The labour costs him but little; but in estimating it to us, he puts

H.
Madras.

down each man at what we would have to give him, which leads to an erroneous estimate of the cost to the ryot, and a ruinous one to any European who undertakes to cultivate the land. I hope you will be more fortunate in your inquiries than I have ever been during seven years' investigation.

4. To enable me "to compare the produce of the best with the medium and inferior soils," I have no data, and could not rely on any we can procure, from whatever source. "The quantity that remains after cleaning:"—I have got data from many different places and people; and as the people could not deceive me much in that respect, it may be relied on as pretty accurate. The churka gives 25 per cent. of cotton; the gin, 22 per cent.; the latter, consequently, three per cent. the cleanest. Whether "there is any difference between the first, second, and third pickings, and whether they are kept distinct, or mixed together:"—The very first gathering consists of the few first pods that open, and is usually wormeaten, and consequently inferior. All subsequent gatherings are naturally good, until the gleanings are gathered, when that too is inferior in quality, from having been produced without rain. The ryots are particular in classifying their cotton; still the best has a good deal of dirt in it, and the brokers buy at a price varying according to quality; but they buy up all qualities, and absolutely separate the rotten locks and much of the trash from the seed cotton, and then separate the seed from the really good article, and after beating the bad rotten stuff with a stone to loosen it on the seed, the seed and the fibre of that are also separated; and if they would only stop here and let us have both separate, we might have a large quantity of really good cotton; but that does not suit the broker, who has been screwed to the lowest notch by the chitty, and the consequence is, he must go to the trouble of mixing the bad and the good articles together, and give it all sorts of "devil's dust" to realise his profit. The chitty, knowing the European agents must take whatever he chooses to give them, of course winks at the broker's transaction; and still there is a cry of a want of good cotton from India. None of the people in England are disposed to a price for Indian cotton in proportion to the quality, when compared with the American. They can get plenty of it; but to expect an improved quality at a reduced rate, merely because it is produced by free ryots, so completely changes the mercantile system as to make it an anomaly. The remedy is in the hands of the merchants.

5. The cost of a candy, 500 lbs. of cotton, varies, in all parts of the country, from 40 rupees to 60 rupees, according to quality and the demand for the article (the carriage on a common article costs just as much as on the first quality). A bandy will carry ($1\frac{3}{4}$) one and three-fourth candies, and costs (8) eight annas for (10) ten miles, which would give an average of Rs. 4. 6. 86. for the conveyance of one candy the distance of (10) ten miles.

6. I believe I have remarked on each subject embraced by the Board's letter that comes within my province. I have given such information as I have to offer. I hope it may be useful.

(signed) F. J. Finnie,
Cotton Planter.

Camp, Courtallum, 30 October 1847.

To D. White, Esq., Acting Secretary to the Board of Revenue, Fort
St. George.

Sir,

COIMBATORE.

1. I HAVE the honour to acknowledge the receipt of extract from the Proceedings of the Board of Revenue, dated the 14th October 1847, and also your subsequent communication of the 23d ultimo, regarding information relative to the cost and profits of the cotton cultivation in this district.

2. Adverting to para. 2 I would remark that the entry of produce for an acre of land in the statement forwarded with my letter of the 21st September last, No. 74, referred to clean cotton, and not seed cotton, as will be observed from the heading of the said statement.

3. The costs and profits exhibited previously were deduced from actual facts, and not calculated upon an estimate as the Board are led to believe; but these particulars affected merely the lands of superior description; the memorandum now transmitted shows also similar details with reference to lands of medium and inferior quality.

4. It will be observed that the profits of the ryot on land of a medium quality is less by nearly one-third than derived from a superior description of soil, and that moreover, the cultivation of cotton on inferior lands renders the grower liable to the loss of one-sixteenth of a pie per lb.; but in order to make matters safe, the ryots generally mix the cotton seed with three or four other kinds of grain, which unitedly make a very profitable return, although the cotton is prejudiced in colour and quality thereby.

5. The produce is gathered once in the year, that is, in the months of February and March, but when the season is favourable the plants yield a second

second produce. It is not usual to keep these pickings separately; in fact the houses and store rooms of the cultivator are far too limited to admit of such an arrangement. The proportion of clean cotton to that with seed is calculated at 1 to 4 $\frac{1}{4}$, viz., the seed amounting to 3 $\frac{1}{4}$, and the lint to 1, in the aggregate quantity.

6. The chief causes which affect the cleanliness of the cotton, and thereby reduce its value, are first the defective native mode of ginning with the ratnum, and the indifference regarding the mixture of unclean cotton with the clean; the former has in a great measure been remedied by the establishment of the gin machinery at Coimbatore, and it is probable that in course of time the latter slovenly mode of procedure will be improved.

7. With reference to the cost of transit, I have to observe that information on this point was obtained from merchants. The ryots sell their cotton either in their villages or at the weekly markets, but Coimbatore, under existing circumstances, appears the centre of attraction in consequence of the vast transactions that are carried on for Government in this staple on the part of the Superintendent of the experimental farms, and they are in consequence unable to give any satisfactory explanation in reference to this item. The nearest port of shipment is Ponany, and all goods, whether cotton, tobacco, or other staple produce of the district, are conveyed thither on carts and not on bullocks.

8. It is not usual in this district to appropriate any particular description of soil to the growth of cotton. It is cultivated by the ryot on such land as suits his convenience, and under this circumstance it is difficult to afford the information required in the concluding part of para. three of the Board's Proceedings now under acknowledgment, the average assessment on a bullah of cotton land, however, amounts to Rs. 5. 14.

Rs. 1. 3. S. per
acre.

9. The statement now submitted has been framed with reference to the accounts received from different talooks, which will be transmitted, if required. Beyond these there are no other data trustworthy.

10. The foregoing remarks apply only to the country cotton, and not to the New Orleans.

11. At this time I beg leave to submit also another memorandum, explanatory of the cost and profits of the cultivation of the latter species. This has been formed upon actual facts in two instances; and the third, with reference to the farm of Ramnathsing, the calculation of the produce, &c., is of a prospective character. The bolls are now just beginning to burst, and therefore it is not easy for a novice to make a calculation that can be depended upon; but from my own experience of the past, and on examination of the average trees, I should say the crop will equal, if not exceed, any previously grown in the district.

No. 2.

12. It will, however, be satisfactory to observe that the amount of profit per lb. corresponds very nearly, whilst the quantity of produce and the cost widely vary with each other; and it can only be explained, as far as my farm is concerned, that the charges have been greater than they should have been, especially from a desire on my part to avoid, in the very remotest degree, the exercise or semblance of any official influence in making a trial, which has been viewed all along with much doubt and prejudice by the cultivators. On this account, I apprehend, the expenses have been made on perhaps too liberal a scale, whilst the cheapness of labour at Animalli and the superior quality of the soil has caused a decrease in the charges and an increase in the produce with reference to the experiment made by Vencatachellum Moodelly. Ramnath Sing's calculations being, as already stated, of a prospective character, cannot but be considered a very insufficient criterion; but in not a single instance can I discover, as far as the assessment of this district refers to the growth of cotton, the smallest grounds for supposing it oppressively or unprofitably high, which would seem to be a cause of complaint in other parts of India, for in these statements it will appear that on an outlay of * 10 rupees the return profit is 18.

* Land tax inclusive.

(signed) J. C. Wroughton,

Coimbatore, 6 January 1848. Principal Collector.

STATEMENT OF PARTICULARS connected with the CULTIVATION of COTTON in the District of *Coimbatore*.

I T E M S.	Produce and Cost of Production, &c., in Land of Superior Quality.					Produce and Cost of Production, &c., on Land of Medium Quality.					Produce and Cost of Production, &c., on Land of Inferior Quality.				
	Produce and Cost, &c. in a Bullah of Land.		Proportion upon an Acre, a Bullah consisting of $3\frac{1}{2}$ Acres, and 391 $\frac{1}{2}$ Feet.		Proportion of Charges, &c., on a Lb. of Clean Cotton.	In a Bullah.		In an Acre.		Proportion of Charges, &c., on a Lb. of Clean Cotton.	In a Bullah.		In an Acre.		Proportion of Charges, &c., on a Lb. of Clean Cotton.
	Clean Cotton.	Amount.	Clean Cotton.	Amount.		Clean Cotton.	Amount.	Clean Cotton.	Amount.		Clean Cotton.	Amount.	Clean Cotton.	Amount.	
	Lbs.	Rs. a. p.	Lbs.	Rs. a. p.	a. p.	Lbs.	Rs. a. p.	Lbs.	Rs. a. p.	a. p.	Lbs.	Rs. a. p.	Lbs.	Rs. a. p.	a. p.
Entire quantity produced	235	20 8 -	61 $\frac{1}{2}$	5 5 10	1 4 $\frac{3}{4}$	206	17 15 6	53 $\frac{1}{2}$	4 11 3	1 4 $\frac{3}{4}$	88 $\frac{1}{2}$	7 11 2	23 $\frac{1}{2}$	2 - 2 $\frac{3}{4}$	1 4 $\frac{3}{4}$
Deduct—															
Cost of production	-	17 6 -	-	4 8 9	1 2 $\frac{3}{8}$	-	16 2 -	-	4 3 5 $\frac{1}{2}$	1 - $\frac{3}{16}$	-	8 12 -	-	2 4 7 $\frac{10}{16}$	1 7 $\frac{1}{16}$
" of cleaning	-	2 10 -	-	- 11 -	- 2 $\frac{1}{16}$	-	2 3 -	-	- 9 1 $\frac{1}{4}$	- 2 $\frac{1}{16}$	-	- 15 -	-	- 3 11 $\frac{1}{16}$	- 2 $\frac{1}{16}$
Total Cost	-	20 -	-	5 3 9	1 4 $\frac{1}{16}$	-	18 5 -	-	4 12 7 $\frac{1}{4}$	1 5 $\frac{1}{16}$	-	9 11 -	-	2 8 6 $\frac{3}{4}$	1 9 $\frac{3}{16}$
Deduct profit in the sale of cotton seed	-	9 12 -	-	2 8 10	- 8 -	-	8 - 6 -	-	2 1 7 $\frac{1}{4}$	- 7 $\frac{1}{4}$	-	3 7 1 -	-	- 14 4 $\frac{3}{8}$	- 7 $\frac{1}{4}$
Remainder	-	10 4 -	-	2 10 11	8 $\frac{1}{16}$	-	10 4 6 -	-	2 11 - $\frac{1}{4}$	- 9 $\frac{1}{16}$	-	6 3 11 -	-	1 10 2 -	1 1 $\frac{1}{16}$
Government assessment	-	5 14 -	-	1 8 8	- 4 $\frac{1}{16}$	-	4 11 2 -	-	1 3 8 -	- 4 $\frac{1}{16}$	-	1 7 6 -	-	- 6 1 $\frac{1}{4}$	- 3 $\frac{3}{16}$
Total Cost	-	16 2 -	-	4 3 7	1 1 $\frac{1}{16}$	-	14 15 8 -	-	3 14 8 $\frac{1}{4}$	1 1 $\frac{1}{16}$	-	7 11 5 -	-	2 - 3 $\frac{1}{4}$	1 4 $\frac{1}{16}$
NET PROFIT	-	4 6 -	-	1 2 3	3 $\frac{1}{16}$	-	2 15 10 -	-	- 12 6 $\frac{3}{4}$	- 2 $\frac{1}{16}$	-	Loss: - - 3	-	Loss: - - $\frac{3}{4}$	Loss: - - $\frac{1}{16}$
Price obtained by the provincial merchant	-	21 -	-	5 7 11 $\frac{1}{4}$	1 5 $\frac{1}{16}$	-	Amount of profit obtained by the ryot in cultivating grain with cotton in the inferior land					1 8 -	-	- 7 3	-
His Profit	-	- 8 -	-	- 2 1 $\frac{1}{4}$	- - $\frac{1}{16}$	-						1 9 -	-	- 7 2 $\frac{1}{4}$	-
Packing and conveyance charges to the port at Ponnany	-	2 13 1 -	-	- 11 9 -	- 2 $\frac{1}{16}$	-	Net profit, after deducting the above loss					-	-	-	-
Wastage by rain, &c.	-	- 3 per Cent.	-	- - -	- - -	-						-	-	-	-

STATEMENT showing the CHARGES incurred for the CULTIVATION of NEW ORLEANS COTTON, and the Profits, &c. &c.

BY WHOM CULTIVATED.	Extent of Land Cultivated.				Charges		PRODUCE.				Amount of Price Obtained.	Net Profit to the Cultivator, after deducting the Cost of Production.	PER ACRE.				Per Lb. of Clean Cotton.		
	Bullahs.	Acres.	Acres.	Acres.	Incurred.	Seed Cotton.	Clean Cotton.			Clean Cotton.			Amount. — Value.	Deduct Cost of Production	Net Value.	Amount Value.	Cost of Production.	Net Profit.	
J. C. Wroughton - - -	22	3½	29	5¼	Rs. 320 6 8	Cs. 50	lbs. 375 13 375	Rs. 995 - -	Rs. *674 9 4	Lbs. 218¾	Rs. 33 14 3	Rs. 10 14 7½	Rs. 18 12 10½	s. 2 3½	s. - 9	s. 1 3½			
								Deduct 122 8 -											
								552 1 4											
encatachellah Moodelly, of Animalli - - -	1	7	5	8	45 9 -	9	250 2 357	147 4 -	101 11 -	246¾	26 12 4½	8 4 6½	18 7 10	1 9	- 6½	1 2½			
amanath Sing, of Coimbatore - -	5	15½	22	13	123 10 3	18	000 5 71½	324 - -	200 5 9	112½ ₁₆	14 3 3	5 6 8½	8 12 6½	- 2½	- 9½	1 3			

* Of this deduct Rs. 122. 8., the charge of conveyance to Madras, which reduces the profit to Rs. 552. 1. 4.

Coimbatore, 6 January 1848.

J. C. Wroughton, Principal Collector.

No. 952.—Revenue Department.

EXTRACT from the Minutes of Consultation under date 4 September 1848.

Read the following letter from the Secretary to the Board of Revenue.

[Here enter 24 July 1848, No. 383.]

Para. 1. WITH the view of ascertaining the causes affecting the cotton trade of the Madras Presidency, Government, under date the 28th May 1847, at the suggestion of the late President, and previous to the receipt of the Honourable Court's Despatch of the 10th November 1847, No. 25, desired that information be procured from the collectors of districts in which cotton was extensively cultivated on points connected with its production. The information originally obtained from the collectors being erroneous, fresh returns were called for, and are now submitted by the Board of Revenue, who consider the general results presented in them to be a fair approximation to the truth.

Consultation,
28 May 1847,
Nos. 87 to 89.Tanjore.
Madura.
Tinnevely.
Guntoor.
Cuddapah.
Bellary.
Coimbatore.
Kurnool.

2. The extent of land under cotton culture where the information is given, appears to be the greatest in Bellary, viz., 209,577 acres. In Tinnevely it is 91,667 acres, in Cuddapah 79,942; Coimbatore 79,260. In Kurnool and Tanjore there was comparatively but little land under this description of cultivation, viz., 11,358 and 5,694 acres, respectively; for Guntoor and Madura the information is not given.

3. The cost of cultivating a pound of indigenous cotton of the best quality, inclusive of the assessment of the land, ranges from 1 *a.* 3 *p.* 87 *c.* to 11 pies, the highest being in Tinnevely, the lowest in Guntoor; the cost per lb. of cotton when brought to the place of export, ranges from 2 *d.* 3 ½ *f.* to 1 *d.* 2 ½ *f.*; the proportion of land tax, with the exception of Guntoor and Cuddapah, is much under a penny the pound, and the loss occurring during transit is calculated to range from 2 to 8, and 8 ½ per cent., according to circumstances and season.

4. It does not appear either from the present or former papers to what extent cotton is cultivated on rent-free lands. In the Ceded Districts, and indeed in other cotton-growing countries, enam lands are extensive, and it may be well inferred that a considerable portion of the cotton exported is the produce of land paying no revenue to Government; some inquiry into this part of the subject seems desirable, and the attention of the Board of Revenue is requested to it.

II.

Madras.

5. On the whole, the Government are of opinion that it is not a reduction of the tax on cotton lands that is chiefly required, but improvement of the internal communications, and encouragement on the part of the purchasers towards the production in the market of the better description of cotton carefully cleaned. Indeed in a recent despatch, the Honourable Court of Directors have declined to countenance any remission of the tax on land appropriated to the culture of American cotton, as forcing a factitious cultivation, and the Government of late years had and continue to have in view the improvement of the local communications.

6. The Governor in Council expects to receive from the Board at an early date the replies to the queries prepared by Dr. Royle, received with the Honourable Court's Despatch of the 10th November 1847, No. 25.

Ordered, that the letter from the Board of Revenue, with the correspondence accompanying it, be transmitted to the Honourable Court of Directors, with reference to para. 4, of the letter from this Government, dated 25th January 1848, No. 17.

(signed) *H. C. Montgomery,*
Secretary to Government.

No. 88 of 1848.—Revenue Department.

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

WITH reference to our letters in this department, dated 25th January 1848, No. 17, and 19th September 1848, No. 69, we have the honour to transmit the replies of the Board of Revenue and of the collectors of the cotton-growing districts with whom they have been in communication, as well as of the Commissioner of Mysore, on the subject of the queries relative to the cotton cultivation of India conveyed in your despatch, dated 10th November 1847, No. 25, together with an extract from the Minutes of Consultation, containing our resolutions thereon.

We have, &c.

(signed) *Henry Pottinger.*
G. H. F. Berkeley.
D. Elliott.

Fort St. George, 5 December 1848.

No. 98.—Mysore Commissioner's Office.

From Major-General *M. Cubbon*, Commissioner for the Government of the Territories of His Highness the Rajah of Mysore, to *J. F. Thomas*, Esq., Chief Secretary to Government, Fort St. George.

Sir,

MYSCORE.

I HAVE the honour to acknowledge the receipt of Sir Henry Montgomery's letter, No. 55, of the 14th January last, transmitting copy of a despatch from the Honourable Court of Directors, with a copy of Dr. Royle's memorandum on the culture of cotton, and herewith to transmit copies of letters from the Superintendents of divisions in this territory, in reply to the queries proposed by the Honourable the Court of Directors.

(signed) *M. Cubbon,*
Commissioner.

Yelwall, 12 November 1848.

(No. 205.)

To the Secretary to the Commissioner for the Government of the Territories of the Rajah of Mysore, Bangalore.

Sir,

I HAVE the honour to acknowledge the receipt of your letter, No. 35, of the 29th ultimo, calling for a report on the cotton culture in this division, as required by a despatch from the Court of Directors, copy of which was sent, endorsed to my address, on the 14th February last, and to reply to the several queries put in that despatch as follows:

Query

Query. 1.—What is the price of cotton freed from seed at the principal mart or marts in your district?

II.
Madras.

Replies.—1. There cannot be said to be any great cotton marts in this division.

The only talooks in which cotton is grown to any extent are Chamraj Nuggur, Tulcaud, Goondul, and Yellundoor. The greater part of the cotton there grown is taken to the town of Collegaul, in the Coimbatore district, which may be said to be the principal cotton mart in this part of the country. Collegaul not being in this district I cannot give the price of cotton there.

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?

2. The price at which the ryot sells his cotton with seed, varies from 8 to 10 annas the maund of 24 lbs., the lb. being equal to 40 Company's rupees weight. Advances are scarcely ever made to the ryots on account of cotton.

3. What is the expense of cleaning cotton by the churkah or foot roller, or by any other method which may be in use?

3. The expense of cleaning cotton by the churkah, which is the only machine in use in this part of the country, is from two to four annas a maund of 24 lbs.

4. What are the expenses of conveying cotton to the nearest port for shipment?

4. The nearest seaport is Tellicherry, and the hire of a bullock from Yellundoor (the central town of the cotton-growing talooks) to that place is $3\frac{1}{2}$ rupees. A bullock carries from 144 to 192 lbs.

5. What is the average produce of cotton per beega, or acre?

5. The average crop in the cotton-growing talooks is about 24 maunds of clean cotton per Krishnaraj kandy off the ground, or about 43 lbs. of clean cotton per acre.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried in the event of an increased demand?

6. The quantity of land that was under cultivation with cotton last year in this division was about 10,000 acres.

The cotton produced is the common country description. It is sown as a rotation crop, and is not allowed to remain more than seven months on the ground, which is made to yield a crop of some other description also within the year.

It does not appear probable that even in case of an increased demand this district could, for many years to come, supply cotton for export, as it does not yet produce nearly sufficient for its own consumption. A large quantity is annually imported from the Dharwar country, and the price of raw cotton in Mysore and Nursipoor, the principal cotton manufacturing towns, varies from Rs. 3. 0. 10. to Rs. 3. 3. $2\frac{1}{2}$. per maund of 24 lbs.

Endeavours have been made within the last few years to introduce the Bourbon cotton, and the experiment, in some talooks, promises success. In Nunjengode, for instance, a piece of land measuring a little more than seven acres, sown with Bourbon cotton, yielded, in the first year, 1,013 lbs. $6\frac{1}{4}$ oz. of clean cotton, which, from its superiority, sold for $3\frac{1}{2}$ rupees the maund of 24 lbs., while the price of the country cotton was only Rs. 2. 14. 8.

If it should appear, on further experiment, that the Bourbon cotton can be successfully cultivated on the inferior uplands, I see no reason why it should not be very generally introduced, but the price of grain is generally so good, and the market for it so certain, that the ryots do not like to place their best lands under any other crop.

The rent of land in this division can scarcely be any hindrance to the cultivation of cotton, as there is plenty of an average good quality to be had at the rate of seven annas and one pie, Company's currency, or less than 1 s. per acre.

It is as well to remark, that about two years ago I issued circular orders directing inquiries to be made as to whether there were any ryots willing to lay waste land under cotton cultivation if it was given to them rent-free for a term of years, and the replies were generally to the effect that the people would not be willing to attempt it.

If the Bourbon cotton succeeds, I think it probable this disinclination will wear away, as the plant lasts for many years, and the expense of cultivating it is consequently less than that of the common country cotton, which scarcely yields anything after the first year; the value of the Bourbon cotton is also much greater.

(signed) H. Montgomery,
Superintendent.

Superintendent's Office,
Astagram Division, Mysore,
2 November 1848.

II.
Madras.

(No. 163.)

BANGALORE.

To the Secretary to the Commissioner for the Government of the Territories of the Rajah of Mysore, Bangalore.

Superintendent's Office, Bangalore,

2 October 1848.

Sir,

I HAVE the honour to acknowledge the receipt of your circular letter, No. 35, of the 29th September last, calling for a report on the state of the cotton culture in this division, for the purpose of furnishing replies to certain queries contained in a despatch from the Honourable Court of Directors, copy of which was forwarded with an endorsed letter from the Secretary to the Government of Fort St. George, on the 14th February last.

2. The cultivation of cotton in this division is carried on to so small an extent, from the general inaptitude of the soil, that my replies to the queries propounded can be of no value as affecting the great question in point. Out of 22 talooks, only three produce any cotton at all, viz., Goribednora, Goodibundah, and Goomnackempollicem, and in these three, in the last year, only 21 candies and one coodoo of land were cultivated with it; and the whole of the produce was appropriated to the domestic use of the growers.

1st. The price of the cotton freed from seed at the principal cotton marts in this division is Rs. 2. 8. per maund of 24 lbs., but this cotton is imported from Bellary, and not produced in this division.

2nd. The price of cotton, with the seed in it, is about Company's annas 10 per maund of 24 lbs., and cleaned, about Company's Rs. 2. 8. per maund of 24 lbs.

3rd. The expense of cleaning one maund of uncleaned cotton with the churka, is estimated at two annas and four pice; but no correct estimate can be made of this expense, as the cleaning process is performed by the members of the family of the growers, and for their own use.

4th. Cotton can be conveyed from Bangalore to Madras, which is the nearest sea-port, at 10 rupees the cart-load, containing 40 maunds of 24 lbs. each maund.

5th. Twenty-one candies and one coodoo of land, or 13,47,200 square yards, produced seven maunds and 17 seers of cotton this last revenue year, but no satisfactory result can be arrived at from the average of so scanty a growth.

6th. The quantity of land under cotton cultivation is as above stated, 21 candies and one coodoo, but the mode of cultivating it is so little known, and the soil so little adapted for it, that I do not think any advantage would accrue from an extension of the cotton culture in this division.

(signed) G. Haines,
Superintendent, Bangalore Division.

(No. 119.)

CHITTLEDROOG.

To the Secretary to the Commissioner for the Government of the Territories of the Rajah of Mysore, Bangalore.

Sir,

I HAVE the honour to submit for the information of the Honourable Court of Directors, replies to the several queries respecting the cultivation of cotton, which accompanied your endorsement, dated 14th February 1848.

2. I would at the same time remark, that the cotton produced in this division is not exported, indeed there is a considerable importation from the Bellary and Dharwar districts, and this state of things is likely to continue, the black cotton soil, the only soil cultivated to any extent with cotton, being almost exclusively confined to the talooks bordering on the Dharwar and Bellary districts.

(signed) R. S. Dobbs,
Superintendent.

Toomcoor, 11 October 1848.

Questions.—1. What is the price of cotton free from seed at the principal mart or marts in your districts?

Answers.—The price of cotton freed from seed at the principal marts in this division is three rupees, and 3½ rupees, maund, weighing Rajah rupees 1,152.

The cotton sold at these marts is imported chiefly from the Dharwar district, but a small quantity from the Bellary districts.

2. At

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances.

The ryot sells his cotton when cleaned at two and $2\frac{1}{2}$ rupees per maund, when uncleaned at eight, nine, and 10 annas. The quantity of cotton produced in the division is too trifling to admit of its being an article of trade with merchants; consequently advances are not made for it.

3. What is the expense of cleaning cotton by the churka or foot-roller, or by any other method which may be in use?

The cotton is cleaned by the churka alone, and the cost of cleaning varies from half an anna to two annas; sometimes the seed alone is given to the cleaner as his hire.

4. What are the expenses of conveying cotton to the nearest port for shipment?

There is no exportation of cotton from this division, but a considerable importation into it.

5. What is the average produce of cotton per beega or acre?

The average produce of cotton is from six to eight maunds per acre.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried in the event of an increased demand?

The quantity of land suited for cotton cultivation is 16,604 $\frac{1}{2}$ acres; of this, about one-half is cultivated in good seasons, the black cotton soil is left fallow occasionally for several years to recover itself. The cotton produced is for the most part retained by the cultivators for their own use.

(signed) R. S. Dobbs, Superintendent.

(No. 58.)

To the Secretary to the Commissioner for the Government of the Territories of the
Rajah of Mysore, Bangalore.

NUGGUR.

Sir,

I HAVE the honour to send a statement, giving the information concerning the cultivation, &c. of cotton called for in letter from the Secretary to Government of Fort St. George, dated 14th January last, No. 55, copy of which, with its enclosures, was forwarded to me endorsed from the Commissioner's office.

(signed) W. C. Onslow,
Superintendent.

Caddoor, 25 May 1848.

STATEMENT giving the Information required by the Queries from the Honourable Court of Directors, contained in their Despatch of the 10th November 1847, regarding the Cultivation, &c. of Cotton in the Nuggur Division.

TALOOKS.	PRINCIPAL MART OR MARTS.	Price of Cotton freed from Seed at the Principal Mart or Marts per Maund. ^a	Price at which the Ryot sells his Cleaned Cotton per Maund,		Price at which the Ryot sells his Uncleaned Cotton per Maund,		Expense of Cleaning a Maund of Cotton.	Expense of conveying Cotton to the nearest Port for Shipment per Maund.	Average Produce of one Kristnaraj Candy of Seed. ^b	Quantity of Land under Cultivation with Cotton. ^c
			With Advance.	Without Advance.	With Advance.	Without Advance.				
1. Honally - -	Honally Bolay honoon Nyamty.	R. a. 2 8	R. a. - -	R. a. 2 8	R. a. - 7	R. a. - 8	R. a. p. - 4 -	R. a. p. - 4 -	Maunds. 360	Candy c. s. 8 12 4
2. Hurryhur - -	Hurryhur - - -	1 14	d	d	- 7	- 8	- 5 4	- 6 2	320	41 0 0
3. Terrikerray -	Terrikerray Adgumpoor -	2 9	2 6	2 10	e	e	- 5 4	- 7 -	300	39 9 2
4. Chengherry -	Cattalgherry Sautebennoor	-	d	-	- 7	- 8	- 5 4	- 8 -	400	74 0 0

^a The maund is 48 seers. The seer weighs 24 Raja repees.

^b The Kristnaraj candy is 160 seers; the seer measures 1 $\frac{3}{4}$ quart bottles.

^c The quantity of land is that which will hold a Kristnaraj candy of seed sown.

^d The ryots of the Hurryhur and Chengherry Talooks do not clean their cotton.

^e The ryots of the Terrikerray Talook do not sell uncleaned cotton.

^f Cotton is not sold in the market towns of the Chengherry Talook, it is bought only from the ryots and exported. The above are the only talooks of this division in which cotton is grown to any extent. A very trifling quantity is cultivated in the talooks of Cuddoor, Chiccamoogloor, Shemogah, Shikarpoor, and Sorub, but only for domestic purposes; chiefly for lamp thread. There is much land in the Cuddoor, Shikarpoor, and Shemogah talooks, which from appearance seems to be suitable for cotton where the climate seems to be suitable also. In the Mubnaad talooks the climate and soil are not suitable.

Note.—It is difficult to say to what extent cultivation might be carried on the extensive plains of the open talooks, composed of great varieties of soils, many of them suitable for cotton.

(signed) W. C. Onslow, Superintendent.

H.
Madras.

(No. 594.)

To J. F. Thomas, Esq., Chief Secretary to Government.

Sir,

In Cons., 14 Feb.
1848.

Para. 1. I AM directed by the Board of Revenue to acknowledge the receipt of an extract Minutes of Consultation, of the 14th January last, transmitting to them transcript of a despatch, 25 of 1847, from the Honourable Court, under date 10th November 1847, together with 20 copies of Dr. Royle's memorandum upon the culture of cotton in India, which accompanied it, and requesting them "to call upon the collectors in the provinces to furnish concise replies to the queries of the Honourable Court."

In reply, I have to state that the Board have sent copies of the Court's despatch and of its accompanying memorandum to the collectors of the districts noted in the margin,* being the chief cotton-growing provinces under the Presidency. Their answers are herewith submitted; but, for facility of reference, the Board have thrown the substance of the replies received into the annexed tabular statement, intended to show, at one view, the information supplied from each district upon the several points adverted to by the Honourable Court. They have also added an abstract of such of the letters from the local officers as contained any explanation which could not conveniently be embodied in the Table.

DISTRICTS.	First Query.	Second Query.				Third Query.	Fourth Query.	Fifth Query.	Sixth Query.	
	Average Price of Cotton, freed from Seed, at the principal Mart or Marts of the District.	Average Price at which it is Sold by the Ryots,				Cost of Cleaning.	Expense of Conveyance to the nearest port of Shipment.	Average Produce per Acre.	Extent of Land in Acres	
		With Advances.		Without Advances.					Under Cultivation.	Capable of producing Cotton.
		Cleaned Cotton.	Uncleaned Cotton.	Cleaned Cotton.	Uncleaned Cotton.					
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p. For every 10 miles, - 5 11 - - 3	Ms. Vs. Ps. 4 3 30 of uncleaned Cotton.		
Nellore { per Candy per Maund	2 1 1 1 7 7	1 14 1 1 5 3	2 8 7 - 5 4	2 1 5 1 7 2	11 1 - 6 -	- of uncleaned Cotton.	- 2 6 2 of uncleaned Cotton.		596 21	- 11
Guntoor { per Candy per Maund	29 8 - 1 7 7	26 9 - 1 5 3	6 11 - - 5 4	28 13 3 1 7 2	7 8 - - 6 -	3 2 11 - 2 6 2 of uncleaned Cotton.	2 5 4 - 1 10 2	Mds. Seers. 9 13 - uncleaned.	47,299 21	102,646 11
Cudda- pah { per Candy per Maund	43 - - 2 2 4 1/2	35 - - 1 12 -	11 - - - 8 9 1/2	39 - - 1 15 2 1/2	12 - - - 9 7 1/2	1 10 8 by bandy, 14 6 - by bullocks. - 1 4 of uncleaned Cotton.	8 10 - 14 6 - by bullocks. - 6 10 3/4	- 8 maunds or 200 lbs. uncleaned.	- 79,562	- 219,587
Kurnool - per Maund	1 10 5	1 9 7	- 6 4	1 10 8	- 6 7	- - 8 of uncleaned Cotton.	- 5 2 1/2	Mds. lbs. 4 12 1/2 of uncleaned Cotton.	19,581	75,481
Bellary - per Maund	1 8 9	1 5 5	- - -	1 7 5	- - -	- 3 6 of cleaned.	- 14 - to Com. ta. P	Lbs. oz. 46 5 of cleaned Cotton.	260,000	400,000

* From Guntoor, 30th June, in Cons., 6th July 1848; from Nellore, 10th, in Cons., 15th May 1848; from Bellary, 11th, in Cons., 18th May 1848; from Cuddapah, 3d, in Cons., 9th October 1848; from Kurnool, 4th, in Cons., 13th March 1848; from Madura, 27th May, in Cons., 25th June 1848; from Tinnevely, 31st July, in Cons., 30th October 1848; from Coimbatore, 5th, in Cons., 14th September 1848.

DISTRICTS.	First Query.	Second Query.				Third Query.	Fourth Query.	Fifth Query.	Sixth Query.	
	Average Price of Cotton, freed from Seed, at the principal Mart or Marts of the District.	Average Price at which it is Sold by the Ryots,				Cost of Cleaning.	Expense of Conveyance to the nearest port of Shipment.	Average Produce per Acre.	Extent of Land in Acres	
		With Advances.		Without Advances.					Under Cultivation.	Capable of producing Cotton.
		Cleaned Cotton.	Uncleaned Cotton.	Cleaned Cotton.	Uncleaned Cotton.					
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	R. a. p.	R. a. p.	R. a. p.	R. a. p.	R. a. p.	R. a. p.	R. a. p.			
Madura - per Maund					7 - - per podhee of 3163/16, or about nine annas per maund of 25 lbs.	2 7 3 per 243 lbs. of cleaned cotton or about four annas per maund, but this is more than met by the value of the seed.	3 - - per cart load, or 4 bales of 243½ lbs. each, or 1 a. 3 p. per maund.	316½ lbs. uncleaned.	48,747 including ramnad and sheva-gunga.	60,747
Coimbatore, per Maund	2 4 8	- - -	- 10 -	- - -	- - -	- 1 2½ of uncleaned Cotton.	- 5 2½	110 lbs. uncleaned.	97,830	-- not specified, but to a great extent.
Tinnevely { per Candy per Maund	47 to 50 2 5 7½ 2 8 -	40 - - 2 - - - - -	11 - - - 8 9½	47 - - 2 5 7½	12 - - - 9 7½	5 - - - 4 - of cleaned Cotton.	6 - - - 4 9½	12 maunds uncleaned	122,391	137,391

3. It should be premised that the rupee entered in the statement is the present Company's rupee; the maund is the Madras maund, of 25 lb. avoirdupois; the candy contains 20 such maunds, or 500 lbs.; and the acre is of 40 goontals each, of 11 yards or 33 feet square, thus containing 4,840 square yards, and being exactly equivalent to the English acre. The instrument employed in cleaning the cotton is the churka, except in Bellary, where "a common wooden machine, peculiar to the country," and in Kurnool, where "a primitive roller" are used.

4. The collector observes, that the cotton produced in Nellore is very limited, Nellore. and chiefly consumed within it. A further quantity for the supply of the district is imported from the Western Provinces; a small quantity is sent by the traders to the nearest sea-ports, and more is sent to Madras by land. Mr. Smith states also, that as this description of produce is raised on the same ground with other crops, it is difficult to ascertain the precise extent of land cultivated with it, and that the cultivation is not likely to increase to any extent, both because the soil is not generally favourable, and because agricultural operations of all kinds are but negligently carried on in Nellore, which is a grazing district, its population being more addicted to rearing cattle than to cultivation.

5. The collector states, that of the cotton produced in his district and sent for Cuddapah, export to Madras, the nearest port of shipment, nearly two-thirds, in consequence of the wretched state even of the main road, is conveyed on bullocks, a mode of transport which is not only very expensive, but renders the cotton liable to great injury from exposure to rain. Mr. Cochrane states further, that the proportion of lands fit for cotton, but cultivated with other descriptions of produce to that applied to the culture of cotton, by rotation of once in two years (the usual mode in Cuddapah), is as 1½ to 1, or 138 to 100. He adds, that the extension of the cultivation would depend upon an increased demand, with remunerating prices, and a fair and equitable assessment. He submits with his report two statements, A. and B., exhibiting the total extent of Circar and Enam land under cultivation, that capable of yielding cotton, as well as that actually cultivated with it, in the district of Cuddapah during Fusly 1256 (1846-47).

II.
Madras.

Bellary.

6. From this district* cotton is chiefly sent to two places for shipment, Madras and Coompta, in Canara, on the western coast, and the collector is of opinion that, if the route to the latter port were repaired, so as to adapt it for the transit of carts (the article being at present conveyed thither on bullocks), there would be a material increase in the exports.

Madura.

7. The collector remarks, that the cotton of this district is not exposed for sale at any large market, but is bought up by Natacooly chetties from a lower degree of merchants, who procure it from the ryots; that there is a considerable falling off† at present in the price, owing to a slackness in the demand, and that the ryot obtains no advances from purchasers, but occasionally pledges his crop, though at no given price, for loans contracted by him for the payment of the Circar tax. Mr. Parker adds, in respect of the land under cultivation, that he believes the returns are below the actual extent, and that no return has been called for from numerous petty zemindaries, on account as well of the delay which it would involve as of the small quantity of cotton grown therein.

Coimbatore.

8. The principal collector states, that with an increased demand for the staple cotton culture in this district would be carried on to any required extent; and he annexes an extract from a letter he addressed the Secretary to Government in 1842, containing suggestions for its improvement and extension.

Guntoor.
Kurnool.
Tinnevely.

9. The reports from these districts afford no information beyond that exhibited in the foregoing figured statement.

I have, &c.
(signed) T. Pycroft, Secretary.

Revenue Board Office,
Fort St. George, 13 Nov. 1848.

GUNTOOR.

To T. Pycroft, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

I HAVE the honour to forward the accompanying statement, embodying the information called for in the six queries of the Honourable Court of Directors, received with the extract from the Board's Proceedings, dated 14th February last, on the subject of cotton.

I have, &c.
(signed) H. Stokes, Collector.

Guntoor, Collector's Office,
Bonpetta, 30 June 1848.

To T. Pycroft, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

WITH reference to the proceedings of the Board of 14th February last, the Minutes of Consultation of Government of 14th January preceding, and the letter of the Honourable Court of Directors of 10th November 1847, I have the honour to forward the following replies to the questions respecting cotton cultivation, therein transmitted to me.

Queries.—1. What is the price of cotton, freed from seed, at the principal mart or marts in your district?

Replies.—1. The price is on an average Rs. 2. 1a. 1p. per maund, consisting of 25 lbs. avoirdupois.

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?

2. The average price per maund is as follows:—

			Cleaned.			Uncleaned.		
			Rs.	a.	p.	Rs.	a.	p.
With advance	-	-	1	14	-	8	-	-
Without advance	-	-	2	1	5	11	1	-

* The Board may here remark that the Davamunnay Ghaut, practicable for wheel carriages, and upon the line of communication between Bellary and the port of Coompta, is now in progress, and it is hoped will be opened by the end of next year.

† From 22 rupees to 18 rupees the podhee or bale of 243 lbs.

No.	TA LO O K.	First Query.	Second Query.				Third Query.	Fourth Query.	Fifth Query.	Sixth Query.		RE MARKS.
		Market Price of Cotton Wool per Kandy.	Price obtained by Ryots per Kandy,				Cost of Cleaning per Kandy.	Hire to the Port of the District.	Average Produce per Acre of Cotton with Seed.	Extent of Land		
			With Advances.		Without Advances.					Under Cultivation in Acres.	Available for Cultivation.	
			Cotton Wool.	Cotton in the Seed.	Cotton Wool.	Cotton in the Seed.						
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	
		Rs.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a. p.	Rs. a. p.	Mds. srs.			
1	Mactoor -	36	30 -	7 8	34 -	8 8	3 - 4	- 15 -	12 20	1,000 -	2,000 -	
2	Coorapat -	27	26 8	6 10	28 -	7 -	3 15 4	1 12 9	8 -	3,312 -	3,897 -	
3	Nursarowpet -	32	28 -	7 -	29 -	8 -	2 3 -	1 5 6	10 -	5,000 -	6,000 -	
4	Condaveed -	28	26 -	6 8	28 -	7 8	3 4 5	1 11 -	7 17½	2,921 -	3,683 -	
5	Datchapully -	28	25 -	6 8	28 -	7 8	3 4 5	3 12 -	9 -	8,366 21	10,667 20	
6	Timmercottah -	26	24 -	6 -	26 -	6 8	3 4 5	4 8 -	9 -	20,000 -	21,000 -	
7	Mungalaherry -	-	-	-	-	-	-	-	-	500 -	500 -	
8	Prettipad -	-	-	-	-	-	-	-	-	500 -	500 -	
9	Baupetta -	-	-	-	-	-	-	-	-	200 -	300 -	
10	Ponnoor -	-	-	-	-	-	-	-	-	500 -	700 -	
11	Rypully -	-	-	-	-	-	-	-	-	500 -	700 -	
12	Tenally -	-	-	-	-	-	-	-	-	1,000 -	1,200 -	
13	Guntoor -	-	-	-	-	-	-	-	-	1,000 -	1,200 -	
14	Innaconda -	-	-	-	-	-	-	-	-	2,500 -	3,000 -	
		177	159 8	40 2	173 -	45 -	19 1 9	14 - 3	55 37½	47,299 21	55,347 20	
	Average for the District }	29½	26 9	6 11	28 13¼	7 8	3 2 11½	2 5 4½	9 13	-	-	
												24 tolas=1 seer, 10 seers=1 maund. 20 mnds.=1 kandy.

- - No Returns having been received from these talooks, the computed extent is entered.

24 tolas=1 seer,
40 seers=1 maund.
20 mds.=1 kandy.

For Datchapully and Timmercottah the land is entered in measured acres. For the other talooks, in acres reduced by calculation from cutchills.

Guntoor Collector's Office,
30 June 1848.

(signed) H. Stokes,
Collector.

It is not customary, however, in this district to make advances for the cultivation of cotton. Four maunds of uncleaned cotton yield about a maund of cleaned cotton, and the sale of the cotton seeds pays in part for the expense of cleaning. At the same time it may be proper to observe here, that most of the cotton grown in this district is sold in its uncleaned state for immediate use, and is cleaned by the parties using it, and it bears a slightly higher price in proportion than the cleaned cotton brought from other districts.

3. What is the expense of cleaning cotton by churka or foot roller, or by any other method which may be in use?

3. The cotton is cleaned with the churka, and the average expense is 2a. 3p. per maund of uncleaned cotton.

4. What are the expenses of conveying cotton to the nearest port for shipment?

4. The produce of this district is very limited, and what is grown is mostly appropriated to the private use of the cultivating community. The quantity required for the manufacturing community, and for the general use of the district, is purchased from merchants who import it from the western districts, viz., Cuddapah, Bellary, Kurnool, &c. The merchants trading in this article have always a considerable quantity in store in Godowns in several of the large and populous villages of the district. A small quantity of the article is sent to the nearest seaports for shipment, and a larger quantity is sent to the Presidency by land. The expenses of conveyance do not, under any circumstances, exceed on an average 5a. 11p. per candy consisting of 20 maunds, or 500 lbs., per every 10 miles.

5. What is the average produce of cotton per beegah or acre?

5. The average produce per acre consisting of 40 coontahs, each measuring 11 yards or 33 feet square, is four maunds three viss thirty polloms.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried in the event of an increased demand?

6. The extent of land cultivated with cotton alone is only 596 acres 2½ coontahs, assessed at Rs. 588. 12a. 8p. Besides this, however, it is customary to cultivate cotton mixed with other crops, viz., aurooga, corra, sujja, natcheny, and chamaloo. With respect to this cultivation, it is not practicable to ascertain the extent of land grown exclusively with cotton; but the cultivation of cotton is really small in this district, and its extension never can be great, as there are few lands well suited to the cultivation. A remark regarding this district may not be improper here; viz., that the innate disposition of the ryots generally inclines to rearing and grazing cattle, and their cultivation is carried on with great negligence and apathy.

(signed) G. A. Smith,
Collector.

Nellore District, Collector's Cutcherry,
Alloor, 10 May 1848.

II.
Madras,
BELLARY.

To T. Pycroft, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

1. IN conformity with the orders conveyed in the extract from the Proceedings of the Board, under date the 14th February last, on the papers noted in the margin,* I have the honour to forward my replies to the queries of the Honourable the Court of Directors regarding cotton.

2. The substance of these replies is contained in the report which I had the honour to address to the Board on the 6th ultimo, No. 25.

3. Of the two routes through which cotton is exported from this district, that for the port of Madras is adapted for carts, the road being partially repaired. The other, *i.e.*, for the port of Coompta, is bad, and consequently impracticable for bandies, the cotton is therefore conveyed thither on cattle (bullocks and buffaloes). Should the latter mentioned route be repaired and made available for wheeled vehicles, I have not a doubt that our exports will experience such an increase as to prove highly beneficial to the traders and growers of this important staple.

(signed) A. Mellor,

Bellary District,

Collector.

Collector's Office, on Circuit, at Ramanadroog,

11 May 1848.

(No. 1.)

REPLIES of the Collector of Bellary to the Queries of the Honourable the Court of Directors on Cotton.

Queries.—1. What is the price of cotton, freed from seed, at the principal mart or marts in your district?

Replies.—1. The price of cotton, freed from seed, at the principal marts of this district is on an average of the last five years, *Rs.* 1. 8*a.* 9*p.* (one rupee eight annas and nine pies) per maund of this country, consisting of 25 pounds.

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?

2. The ryot sells his cleaned cotton at *C. Rs.* 1. 7*a.* 5*p.* (one rupee seven annas and five pies) per maund without advance. Those that are poor obtain advances from merchants, and the price of cotton sold under this arrangement will be two annas less per maund than the above.

3. What is the expense of cleaning cotton by the churka or foot-roller, or by any other method which may be in use?

3. The method of separating the seed from cotton is chiefly by means of a common wooden machine peculiar to the country. Four maunds of uncleaned cotton produce three maunds of seed and one maund of cotton freed from it. The expense of thus separating the seed is from three to four annas, the average being $3\frac{1}{2}$ annas per maund of cotton without seed.

4. What are the expenses of conveying cotton to the nearest port for shipment?

4. Cotton is conveyed from this district chiefly to two places, the "Wallajapett," near Madras, and Coompta in Canara, on the western coast. The expenses of conveying it to the latter-mentioned port is on average 14*a.* (fourteen annas) per maund, as follows:

	Cs.	Rs.	a.	p.
Hire - - - - -	-	-	7	6
Wages of a goomastah or attendant - - - - -	-	-	2	1
Price of cumblies and hire - - - - -	-	-	1	4
Brokerage, &c., at the place of sale - - - - -	-	-	-	10
Sundries - - - - -	-	-	-	2
			11	11
Add wear and tear - - - - -	-	-	2	1
TOTAL - - - - -	-	-	14	-

5. What

* Letter from the Honourable Court of Directors to the Government of Fort St. George, dated 10th November 1847, No. 25, with its Enclosures. Extract from the Minutes of Consultation in the Revenue Department, dated 14th January 1848, No. 54.

5. What is the average produce of cotton per beega or acre?

5. The term beega is not in use in this district. The acre is 40 goontahs, each goontah consisting of 33 square feet. The average produce of cotton per acre of the ordinary, better and best descriptions of land is estimated at 46 lbs. 5 oz.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried in the event of an increased demand?

6. The quantity of land under cotton cultivation does not, on an average of the last five years, exceed 2,60,000 acres. In the event of an increased demand for the article, 4,00,000 acres may probably be brought under cultivation.

(signed) A. Mellor,
Collector.

Bellary District,
Collector's Office, on Circuit, Ramanadroog,
11 May 1848.

To T. Pycroft, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

Para. 1. WITH reference to extract from the Proceedings of the Board of Revenue, dated 14th February 1848, with which were transmitted extract from the Minutes of Consultation under date 14th January last, together with copy of a despatch from the Honourable Court of Directors, and that of Dr. Royle's Memorandum on the culture of cotton in India, I have the honour to furnish the replies required to the queries of the Honourable Court:

CUDDAPAH.

Questions.—1. What is the price of cotton freed from seed at the principal mart or marts in your district?

Answers.—The price of cotton freed from seed at the principal marts in this district was 43 rupees per candy during Fusly 1257 (A.D. 1847-48), or 1 a. 4 p. per lb.

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advance?

Ryots who received advances sold their cotton cleaned at 35 rupees per candy, and that uncleaned at 11 rupees per candy; and those who received no advances sold the former description at 39 rupees, and the latter at 12 rupees per candy.

In illustration of the calculation and data on which the information furnished in the above answer has been obtained, it will be necessary to state that the proportion of wool to seed is estimated at one to three; viz., that in four candies of uncleaned cotton, only one candy of wool is obtained when the same is freed from seed; that the price of cotton seed per candy is Rs. 4. 10. 8., and that the expense of cleaning cotton by the churka or foot-roller, at one anna and four pies per maund, is Rs. 1. 10. 8. per candy. A ryot would accordingly obtain 44 rupees for four candies of uncleaned cotton, and if he cleaned the above quantity of cotton, 35 rupees for one candy of wool procurable, 14 rupees being the value of the remaining three candies of seed, from which is to be deducted five rupees for the expenses incurred in cleaning the above quantity at the rate per candy mentioned.*

3. What is the expense of cleaning cotton by the churka or foot roller, or by any other method which may be in use?

The expense of cleaning cotton by the churka, the only method in use, is Rs. 1. 10. 8. per candy.

4. What are the expenses of conveying cotton to the nearest port of shipment?

Merchandise is transported to Madras at the rate on an average of 12 annas per every 10 miles for bandy load, and at four annas for the same distance if laden on a bullock. Madras being the nearest port of shipment by the present existing line of communication, and the average distance from the place of produce being 230 miles, and 40 maunds or two candies being considered a bandy load, the expense of conveying cotton to the Presidency may be estimated at Rs. 8. 10. per candy, or 3 pies 0 $\frac{30}{100}$ cents per lb. On the same calculation, eight maunds being a bullock load, the cost of this means of transit is Rs. 14. 6. per candy, or 5 $\frac{1}{2}$ pies per lb. A vast quantity, at least two-thirds of this produce, is obliged to be conveyed

* Price of four candies of uncleaned cotton	-	-	-	-	-	44 Rupees.
viz.,						
Price of three candies of seed	-	-	-	-	-	14
Deduct expenses of cleaning four candies of cotton	-	-	-	-	-	5
						9
Add price of one candy of cleaned cotton	-	-	-	-	-	35
Total	-	-	-	-	-	44 Rupees.

II.
Madras.

conveyed to the Presidency on bullocks, in consequence of the wretched state of the high road to Madras, by which system of transport, independent of the considerable expense incurred in the conveyance of goods, great damage is occasioned to them in the event of exposure to rain.

The total absence of made roads in this district, of even one to the Presidency, therefore renders communication very difficult, and quite inadequate to the requirement of commerce. This want of facility of communication is severely felt, and traffic is carried on at a considerable additional cost of money, labour and time.

5. What is the average produce of cotton per beega or acre?

The average produce of uncleaned cotton per acre is estimated at eight maunds or 200 lbs.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried on in the event of an increased demand?

The following statement exhibits the quantity of lands, sirkar and enam, which has come under cultivation with cotton from Fusly 1251 (1841-42) to 1256 (1846-47) inclusive, and the average of the first five years:

FUSLIES.	Superior or Black Land.		Middle Description, or Mixed Lands.		SUPERIOR DESCRIPTION.				TOTAL.	
					RED LAND.		WET LAND.			
	Extent.	Assessment.	Extent.	Assessment.					Extent.	Assessment.
	Acres.	Rupees.	Acres.	Rupees.	Extent.	Assessment.	Extent.	Assessment.	Acres.	Rupees.
1251 - - -	58,128	93,452	20,442	23,340	10,623	11,153	148	1,077	89,341	1,29,022
1252 - - -	54,829	88,817	20,040	22,136	10,582	10,585	168	1,169	85,619	1,22,707
1253 - - -	50,136	79,505	18,086	20,723	9,302	9,454	120	862	77,644	1,10,544
1254 - - -	54,793	86,652	18,861	20,923	10,240	11,241	157	1,195	84,054	1,20,011
1255 - - -	54,647	84,766	19,314	21,352	9,985	10,486	215	1,243	84,161	1,17,846
TOTAL - -	2,72,533	4,33,192	96,743	1,08,473	50,732	52,919	808	5,546	4,20,816	6,00,130
Average - -	54,506	86,638	19,319	21,695	10,146	10,584	162	1,109	84,163	1,20,026
1256 - - -	46,360	79,226	21,965	25,324	11,237	12,057	380	2,813	79,942	1,19,420

Total sirkar and enam lands capable of cotton cultivation - - - - - 2,19,587 Acres.

Extent of land actually uncultivated with cotton - - - - - 79,562

Cultivated in two years - - - - - 1,59,124

Centage between the two items, 138 to 100.

* Vide statements accompanying (A.) and (B.)

† TALOOKS.	EXTENT.			ASSESSMENT.		
	Acres	c.	as.	Rs.	a.	p.
Zummulmudgoo -	2,934	9	15½	10,059	2	2
Doovoor -	4,613	17	3	13,108	9	8
Koilgoontlah -	583	2	11½	1,917	-	3
Camalapoor -	310	28	9	870	8	4
Poolevendlah -	548	0	12½	1,304	1	4
TOTAL - -	8,989	19	3	27,259	5	9

The system of cultivating this description of produce being generally by rotation in alternate years, it is to be considered that an equal extent of land, which is yearly cultivated by other descriptions of produce, is capable of yielding cotton, all of which might be cultivated with cotton twice in three years if sufficient inducement was held out to the ryots; while the proportion of lands otherwise cultivated, but capable also of producing cotton, to that cultivated with this produce in the manner above described, is ascertained to be 1½ to 1,* or 138 to 100.

From the detailed returns lately received from the five cotton producing talooks of this district,† it appears that there are 8,989 acres of land capable of cotton cultivation, the assessment of which is 27,259 rupees, as marginally particularised. The average assessment on the whole being Rs. 3. 0. 6., is considered high with reference to the rates of assessment of the same description of land which has come under cultivation, the average of which is Rs. 1. 9. 11., and consequently too much to afford ryots any encouraging remuneration for the exercise of their industry in the cultivation of these lands. The extent of land agreed for, and capable of yielding cotton, but which are cultivated with other descriptions of produce, as also of such above referred to as are waste that would be brought under cotton cultivation, would depend upon the increased demand affording remunerative prices, and upon the encouragement held out to ryots for extending the culture of this staple article

article by the introduction of a fair and equitable assessment, thereby effecting a judicious reduction in its costs of production. The subject having been fully dwelt on in my Jumma-bundy report for Fusly 1256, and in my letter about to be submitted having reference thereto, renders any further remarks from me unnecessary.

Cuddapah, Collector's Office, (signed) *J. H. Cochrane*,
3 October 1848. Collector.

(A.)—STATEMENT showing the Total Extent of CIRCAR DRY LAND brought under CULTIVATION, that capable of Cotton Cultivation, as well as that actually cultivated with Cotton in the District of Cuddapah during Fusly 1256.

TALOOKS.	Total Extent of Dry Black Land Cultivated, in Acres.	Of which Extent of Black Land capable of producing Cotton, in Acres.	Extent of Land Cultivated with Cotton, in Acres.	Per-centage between Columns 2 and 3, Acres.	Per-centage between Columns 3 and 4, Acres.	Total Extent of Mixed Land Cultivated, Acres.	Of which Extent of Land capable of producing Cotton.	Of this Extent of Land actually Cultivated with Cotton.	Per-centage between Columns 7 and 8.	Per-centage between Columns 8 and 9.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Cumbum - -	7,794	1,168	534	15	46	42,137	4,213	1,515	10	36
2. Dupaud - -	2,551	510	223	20	44	52,313	5,231	1,975	10	38
3. Budwail - -	805	201	103	25	51	26,858	4,028	2,102	15	52
4. Jummulmudgoo -	54,701	21,880	8,532	40	39	26,990	5,398	2,624	20	49
5. Doovoor - -	33,420	6,684	2,115	20	32	22,877	3,430	1,639	15	47
6. Koilgoontlah -	65,511	26,204	12,458	40	48	16,119	3,222	1,639	20	51
7. Chitwail - -	427	-	-	-	-	15,687	-	-	-	-
8. Sidhout - -	579	230	181	40	79	6,898	-	-	-	-
9. Chennoor - -	16,252	1,625	732	10	45	2,164	110	10	5	9
10. Camalapoor -	39,223	3,922	1,455	10	37	10,871	544	130	5	24
11. Goorumecondah -	-	-	-	-	-	56,753	2,838	500	5	18
12. Muddenpully -	226	-	-	-	-	59,002	2,950	548	5	17
13. Poolevendiah -	25,078	5,014	2,047	20	41	44,927	4,492	1,287	10	28
14. Royachoty - -	-	-	-	-	-	73,138	3,657	876	5	24
TOTAL - -	2,46,567	67,438	28,380	27	42	4,56,734	40,113	14,845	9	37
Enam Land - -	-	-	17,980	-	-	-	-	7,120	-	-
GRAND TOTAL - -	-	-	46,360	-	-	-	-	21,965	-	-

TALOOKS.	Total Extent of Red Lands actually Cultivated, Acres.	Of which Extent of Red capable Lands of producing Cotton.	Of this Extent of Land actually Cultivated with Cotton.	Per-centage between Columns 12 and 13.	Per-centage between Columns 13 and 14.	Total Dry Land Cultivated.	Of which Extent of Land capable of producing Cotton.	Of this Dry Land actually brought under Cotton Cultivation.	Per-centage between Columns 17 and 18.	Per-centage between Columns 18 and 19.
12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	
1. Cumbum - -	9,072	907	269	10	30	59,003	6,288	2,318	11	37
2. Dupaud - -	10,314	515	190	5	37	65,178	6,256	2,388	19	38
3. Budwail - -	9,933	1,490	558	15	38	37,596	5,719	2,763	15	48
4. Jummulmudgoo -	23,269	2,326	1,104	10	48	1,04,960	29,604	12,260	28	41
5. Doovoor - -	20,199	2,019	1,009	10	50	76,496	12,133	4,763	16	39
6. Koilgoontlah -	23,609	3,540	1,549	15	44	1,05,239	32,966	15,646	31	47
7. Chitwail - -	5,374	-	-	-	-	21,488	-	-	-	-
8. Sidhout - -	8,631	-	-	-	-	16,108	230	181	2	78
9. Chennoor - -	22,454	1,120	107	5	10	40,870	2,855	849	7	30
10. Camalapoor -	13,634	682	17	5	3	63,728	5,148	1,602	8	31
11. Goorumecondah -	-	-	-	-	-	56,753	2,838	500	5	18
12. Muddenpully -	13,838	690	63	5	9	73,066	3,640	611	5	17
13. Poolevendiah -	1,15,703	5,785	2,409	5	42	1,85,708	15,291	5,743	8	37
14. Royachoty - -	19,077	954	350	5	37	92,215	4,611	1,226	5	27
TOTAL - -	2,95,107	20,028	7,625	7	38	9,98,408	1,27,579	59,550	13	40
Enam Land - -	-	-	3,612	-	-	6,26,216	92,008	28,712	13	31
GRAND TOTAL - -	-	-	11,237	-	-	16,24,624	2,19,587	79,562	13	36

Cuddapah, Collector's Office, 3 October 1848. (signed) *J. H. Cochrane*, Collector.

(B).—STATEMENT showing the Total Extent of ENAM LAND brought under CULTIVATION, that capable of Cotton Cultivation, as well as that actually Cultivated with Cotton in the District of Cuddapah, during Fusly 1256.

T A L O O K S.	Total Extent of Dry Land Cultivated.	Of which Land capable of producing Cotton Cultivation.	Of this Extent of Land Cultivated in Fusly 1256,				Per Centage between Cols. 2 & 3.	Per Centage between Cols. 3 & 7.
			Black Land, Acres.	Mixed Lands.	Red.	Total Acres.		
1.	2.	3.	4.	5.	6.	7.	8.	9.
	Acres.							
1. Cumbum	66,581	7,323	735	1,311	478	2,524	11	35
2. Doopaud	58,979	5,308	111	1,646	69	1,826	9	35
3. Budwail	35,204	5,280	123	1,251	371	1,945	15	37
4. Jummalmudgoo	67,895	19,011	4,100	-	-	4,100	28	22
5. Doovoor	70,530	11,283	1,963	1,716	953	4,632	16	41
6. Coilgoontlah	94,279	29,223	9,193	658	1,156	1,107	31	38
7. Chitwail	18,855	-	-	-	-	-	-	-
8. Sidhout	6,028	125	43	-	-	43	2	35
9. Chennoor	24,186	1,691	315	-	38	353	7	21
10. Camalapoor	43,228	3,457	914	34	13	961	8	28
11. Goorrumcondah	16,216	810	-	104	-	104	5	13
12. Muddenpully	23,610	1,180	-	198	19	217	5	18
13. Poolevendlah	76,342	6,108	483	14	260	757	8	12
14. Royachoty	24,283	1,214	-	188	55	243	5	20
TOTAL	6,26,216	92,008	17,980	7,120	3,612	2,87,121	13	31

Cuddapah, Collector's Office,
3 October 1848.

(signed) J. H. Cochrane,
Collector.

KURNOOL.

To T. Pycroft, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

Para. 1. I HAVE the honour to submit replies in a concise form to the queries from the Honourable Court of Directors regarding cotton, which were transmitted with an extract from the Board's Proceedings, dated the 14th ultimo :

1st. The price of cotton, freed from seed, at the principal marts in the Kurnool district is from Rs. 1. 10. 3. to Rs. 1. 10. 8. per maund.

2d. Having received advances, a ryot sells uncleaned cotton at Rs. 0. 6. 4. the maund ; without advance, at Rs. 0. 6. 7. Cleaned cotton is sold by him, if he has had advances, at Rs. 1. 9. 7. the maund, and at Rs. 1. 10. 8. for the same quantity, if no advances have been made to him.

3d. In this district nothing is used for cleaning cotton, but a very primitive roller, to making of which costs less than half a rupee. The expense of cleaning cotton with this simple instrument is calculated at Rs. 0 0. 8. the maund.

4th. It is estimated that the cost of conveying cotton to the nearest sea-coast, viz., that in the Nellore district, would be Rs. 0. 5. 2½. per maund.

5th. The average produce of cotton per acre, on good and bad soils, I believe to be about 4 maunds 12½ lbs.

6. It

6th. It is calculated that 19,581 acres are now under cultivation with cotton, and that it might be extended to 75,481 acres without inconvenience, if a sufficient demand were created.

2. The maund referred to in this communication is that of 25 lbs.; the acre, the English acre; and the rupee, the present Company's rupee.

(signed) H. D. Phillips,

Kurnool District, Agent to the Governor.
Camp Gaurdeemudgoo, 4 March 1848.

To T. Pycroft, Esq., Secretary to the Board of Revenue, Fort St. George.

MADURA.

Sir,

I HAVE the honour to enclose a paper of answers to the questions relative to the price and production of cotton wool, contained in the despatch of the Honourable Court of Directors, dated the 10th November 1847.

Madura, Theroomungalum, (signed) R. D. Parker,
27 May 1848. Collector.

ANSWERS to Questions relative to Cotton Wool, contained in a Despatch from the Honourable Court of Directors, dated 10 November 1847.

1. EXPORTERS do not generally make purchases in the Madura district, but the cotton is bought up by Natoocatay chetties, who obtain it from a lower degree of merchants, by whom it is procured from the ryots. It is sold to the Natoocatay chetties by the podhee or bale of $243\frac{3}{4}$ lbs., the price of which is generally 22 rupees, but at present said to be so low as 18 rupees, owing to a slackness in the demand.

2. The ryot in this district obtains no advances for cultivation from the cotton buyers; he sometimes pledges his crop for money borrowed to pay the Sircar tax, but not at a given price; he sells his cotton, uncleaned, by the podhee of $316\frac{3}{16}$, and the usual price is seven rupees the podhee.

3. Cotton is freed from seed by the churka, and afterwards cleaned by stick beating.

Three podhees of uncleaned cotton, making $316\frac{3}{16} \times 3 = 1,012\frac{3}{16}$ lbs.

	Rs.	a.	p.
Cost for removing seed - - - - -	1	13	1
For subsequent cleaning - - - - -	-	10	2
TOTAL - - - - -	2	7	2

The cleaned cotton derived therefrom weighs $243\frac{3}{4}$ lbs., which is a bale or podhee mentioned in the answer to Question 4. The value of the seed extracted from the three podhees of uncleaned cotton is Rs. 3. 12., exceeding the cost of cleaning.

4. The nearest port of export for cotton is Tutacurin. Four podhees, or bales of $243\frac{3}{4}$ lbs. each, mentioned in the preceding answer, make one cart-load; and the hire of cart from Theroomungalum, a central mart, to Tuticorin, is three rupees in the dry months, and Rs. 3. 4. in the rainy season.

5. The average produce per acre is $316\frac{3}{16}$ lbs. of uncleaned cotton.

6. The extent of land cultivated in Fusly 1257. with cotton in the Government talooks, and the large zemindaries of Ramnad and Shevangunga, is returned at 36,865 cawnies or 48,747 acres. No return has been required from the numerous small zemindaries, from a consideration of the length of time which would be consumed in obtaining the accounts, and the small extent of cotton grown in those zemindaries; according to the returns, the district contains about 12,000 acres fit for cotton, beyond what is at present under that species of cultivation, and an efficient demand would probably lead to cotton being raised thereon. I am inclined to believe that the returns are below the actual extent.

(signed) R. D. Parker, Collector.

Madura, Theroomungalum,
27 May 1848.

II.
Madras.

TINNEVELLY.

To *T. Pycroft*, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

WITH reference to the extract from the Proceedings of the Board of Revenue, under date the 14th February last, and to the extract from the Minutes of Consultation, dated 14th January last, and of the letter from the Honourable the Court of Directors thereunto prefixed, I have the honour to subjoin concise replies to the several queries regarding the price and culture of cotton in this district :

Queries.—1. What is the price of cotton, freed from seed, at the principal mart or marts in your district?

Replies.—1. Forty-seven to 50 rupees per candy.

2. At what price does the ryot sell his cotton cleaned and uncleaned, and with or without advances?

2. Sells, without advance, cleaned cotton at about 47 rupees per candy. Uncleaned ditto at about 12 rupees per candy. With advance, cleaned cotton at about 40 rupees per candy. Uncleaned cotton at about 11 rupees per candy.

3. What is the expense of cleaning cotton by the churka or foot-roller, or by any other method which may be in use?

3. Cotton is cleaned in this district by the churka, and the expense for cleaning it is about five rupees per candy.

4. What are the expenses for conveying cotton to the nearest port for shipment?

4. About six rupees per candy of cleaned cotton.

5. What is the average produce of cotton per beega or acre?

5. Three maunds of cleaned cotton, or 12 maunds of uncleaned cotton, is the average produce per acre.

6. What is the quantity of land under cultivation with the cotton, and to what extent is it probable that the cultivation could be carried in the event of an increased demand?

6. The extent of land cultivated with cotton during Fusly 1256, is 122,391 acres; but, in the event of an increased demand, about 15,000 acres more can be brought under cultivation.

One acre = 43,560 square feet.

One candy = 500 pounds.

(signed) *E. B. Thomas*, Collector.

Tinnevelly, Tencausey, 31 July 1848.

COIMBATORE.

To *T. Pycroft*, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

I HAVE the honour to acknowledge the receipt of extract from the Proceedings of the Board of Revenue, dated the 14th February 1848, together with copy of correspondence noted in the margin,* and to submit my replies to the queries therein contained :

Queries.—1. What is the price of cotton, freed from seed, at the principal mart or marts in your district?

Replies.—1. The average price of a maund of indigenous cotton in the town of Coimbatore, which, from its proximity to the Malabar coast, may be considered the mart of first importance, is Rs. 2. 4. 8., or Rs. 45. 13. 10. per candy of 500 lbs. This has been calculated upon the selling prices of the last five years, as shown in the subjoined memorandum. The cotton is brought to the market chiefly in the months of October, November, and December, and the prices of these months are therefore taken into calculation.

* M. C., 14th February 1848, No. 54, despatched from the Honourable the Court of Directors, 10th November 1847.—No. 25.

FUSLIES.	October.	November.	December.	TOTAL.	Average per Annum.
1253 - <i>Rs. p' Candy</i>	53 - -	53 - -	53 - -	159 - -	53 - -
1254 - - "	50 - -	49 - -	49 - -	148 - -	49 5 4
1255 - - "	39 - -	38 - -	39 - -	115 - -	38 5 4
1256 - - "	43 - -	43 - -	43 - -	129 - -	43 - -
1257 - - "	41 - -	48 - -	48 - -	137 - -	45 10 8
TOTAL - - -	225 - -	231 - -	232 - -	688 - -	229 5 4
Average per year - -	45 - -	46 3 2	46 6 5	137 9 7	45 13 10

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?

2. The home provincial merchants* receive advances from merchants engaged in the more extensive trade of the article, which they disburse prospectively to the ryot with reference to the estimated crop. The ryot sells his produce (uncleaned) to the former 10 annas a maund, or *Rs.* 12. 6. 9. per candy† of 500 lbs. This has also been computed upon the average of the last five years, as exhibited below:—

ITEMS.	Price per Candy in 1253 (1843-44).	Price per Candy in 1254 (1844-45).	Price per Candy in 1255 (1845-46).	Price per Candy in 1256 (1846-47).	Price per Candy in 1257 (1847-48).	TOTAL.	Average per Year for One Candy.	For 4½ of Candies.
Seed cotton - -	<i>Rs. a. p.</i> 13 8 -	<i>Rs. a. p.</i> 11 8 -	<i>Rs. a. p.</i> 10 8 -	<i>Rs. a. p.</i> 12 10 -	<i>Rs. a. p.</i> 14 - -	<i>Rs. a. p.</i> 62 2 -	<i>Rs. a. p.</i> 12 6 9	<i>Rs. a. p.</i> 52 12 8
Add amount of hire for cleaning - -	1 10 8	1 10 8	1 10 8	1 4 -	1 4 -	7 8 -	1 8 -	6 6 -
TOTAL - -	15 2 8	13 2 8	12 2 8	13 14 -	15 4 -	69 10 -	13 14 9	59 2 8
Deduct amount obtained for cotton seed - -	4 - -	3 3 4	3 3 -	6 8 -	5 5 4	22 3 8	4 7 1	3½ Candies. 14 7 -
Net amount of price for one candy of clean cotton							- - -	44 11 8
Add profit to the home trader - - -							- - -	1 2 2
Total value of a candy of clean cotton - - -							- - -	45 13 10

3. What is the expense of cleaning cotton by the churka or foot-roller, or by any other method which may be in use?

3. The average expense of cleaning cotton by the churka, or, as it is called in this country, "ratnum," is one anna and two and a half pice per maund, or *Rs.* 1. 8. a candy of 500 lbs.

4. What are the expenses of conveying cotton to the nearest port for shipment?

4. The nearest port for shipment is Ponanny on the Malabar coast, about 100 miles from Coimbatore; and the expenses of carriage, as far as they can be ascertained, amount to 5 annas and 2½ pice per maund, or *Rs.* 6. 8. a candy. The memorandum in the margin‡ will afford detailed information on the point.

5. What

* The middlemen between the ryot and exporter.

† 4½ candies of seed cotton are considered equivalent to one candy without seed.

	<i>Rs. a. p.</i>
‡ Hire of cartage per 1 candy of cotton - - -	4 - -
Packing charges - - -	2 - -
Fee for crossing ferries, &c. &c. - - -	8 - -
	<i>Rs. 6 8 -</i>

5. What is the average produce per beega or acre?

5. It is difficult to afford a satisfactory reply to this question. Some of the lands appropriated by me for purposes of experiment in the previous years yielded as much as 12,000 lbs. of seed cotton per cawnie,* but the contrast, as regards country plants, is most unfavourable; they produce a most scanty crop under the best circumstances, and that depending entirely on the description of the soil, the fact of its being a single or combined crop, and the quantity of labour bestowed. In order, however, to obtain some standard, I have calculated the average produce of the last five years, which gives about 110 lbs. of seed cotton per acre.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried on in the event of an increased demand?

6. The average quantity of land under cotton culture amounts to about 97,830 acres. With increased demand and remunerating price, the cultivation will no doubt keep pace to any required extent; the following statement will indicate how the average calculation with reference to the cotton land was arrived at:

FUSLIES.	No. of Acres of Land under Cotton Cultivation.	PRODUCE.			Average Produce per Acre in lbs.
		C.	m.	lbs.	
1252 - - - - -	1,00,474 12	26,789	8	13 $\frac{3}{4}$	133 $\frac{6}{16}$
1253 - - - - -	1,02,805 12	25,919	4	13 $\frac{1}{2}$	126 $\frac{1}{4}$
1254 - - - - -	97,406 8	24,718	16	10 $\frac{5}{8}$	126 $\frac{5}{16}$
1255 - - - - -	1,09,195 8	21,927	17	15	100 $\frac{7}{16}$
1256 - - - - -	79,263 -	9,153	10	14	57 $\frac{3}{4}$
TOTAL - - - - -	4,89,145 8	1,08,538	17	17	—
Average - - - - -	97,829 1 $\frac{3}{4}$	21,707	15	13 $\frac{7}{16}$	100 $\frac{15}{16}$

10 Dec. 1842.

II. As connected with this subject, I beg leave to annex an extract of letter addressed by me to the Secretary to Government in 1842:—"Indeed, with the advantages of the machinery now setting up in Coimbatore for cleaning the cotton, the seaport of Ponany for its place of shipment, the cotton of this district will enjoy favouring advantages hitherto never contemplated; when to this is added the unlimited quantity which can be produced by means more simple, as well as economical (from the trial which I have made), I am perfectly convinced that I am not overrating the capabilities of this district, either as regards the quantity of produce or its excellent quality. The only difficulty, as I have before remarked, which presents itself, is for the disposal of the produce by the grower relieved from the tax and molestation of brokerage, which I hope Government may consider it expedient to remove by authorising the reception of the American cotton produce solely at remunerating and encouraging rates; I would suggest for the present 17 $\frac{1}{2}$ rupees the candy on delivery, seed inclusive, which might be returned or distributed to the ryots for future operation."

III. This was my recorded opinion six years ago; it was not hastily formed, and I find that it is gradually obtaining acceptance as regards the country cotton.

(signed) J. C. Wroughton,
Princl. Collector.

Coimbatore, 5th September 1848.

EXTRACT from the Minutes of Consultation, under date the 5th December 1848.

3. From the reports submitted by the Board of Revenue, the cotton-growing districts are eight in number, the principal of which are the ceded districts, Bellary and Cuddapah, and the districts of Coimbatore and Tinnevely.

4. In Bellary the extent of land under cotton cultivation taken on an average of the last five years, is 2,60,000 acres, which the collector states may be extended to 4,00,000 acres if there were "an increased demand" for the article. He alludes to the repair of the road to Coompta on the western coast as likely to effect a material increase in the exports, and the Board of Revenue

* New Orleans, equal 1 $\frac{5}{16}$ acre.

Revenue observe in reference thereto, that the Davamunnay Ghat, practicable for wheel carriages, and upon the line of communication between Bellary and Coompta, will be opened by the end of 1849.

5. In the neighbouring district of Cuddapah there are 79,562 acres under cultivation, capable of being extended to 2,19,587, which might be applied to this culture, if "sufficient inducement was held out to the ryots," by an increased demand, and by "the introduction of a fair and equable assessment." The wretched state of the road to Madras is also alluded to, but calls for no remark here, as the subject of improving it has already received the attention of this Government.

6. In Coimbatore the average quantity of land under cotton cultivation is 97,830 acres, and the collector states that with increased demand and remunerating price, the cultivation can be carried to any required extent. Dr. Wight's estimate, based upon a series of calculations, is considerably in excess of the collector's statement of the extent of land actually under cultivation, but these officers would seem to agree in respect of the capabilities of the district for producing cotton. In Tinnevely 1,22,391 acres are under cultivation, and in the event of an increased demand a further extent of 15,000 acres can be brought into cultivation.

7. In Madura there would appear to be altogether 60,000 acres adapted for this cultivation; in Gunttoor upwards of 1,00,000; and in Nellore an insignificant extent; but from the peculiarities of this last district it can scarcely be reckoned a cotton-growing one.

8. In Kurnool 19,581 acres are under cultivation; and the agent remarks that it can be extended without inconvenience to 75,481 if a sufficient demand were created.

9. The superintendent of the Astagram division in Mysore states that there are about 10,000 acres under cotton cultivation; that the produce is insufficient for local consumption, but were even an increased demand offered, the district could not supply cotton for export. He alludes to a circular issued some years back to allow waste land, if taken up for cotton cultivation, to be held rent free for five years, and states that this offer failed of success. In one other division of the same territory, viz., Chittledroog, there are 8,000 acres under cultivation for local consumption, and as much more available. In the remaining divisions the cultivation is limited, and cotton is imported from Bellary and Cuddapah.

10. The average produce of cotton on an acre of land appears to vary in different districts, and even in the same district very considerably according to soil, climate, variety, and other circumstances. In Coimbatore the produce per acre is 110 lbs. of seed cotton; Tinnevely, 300 lbs.; Madura, 316; Kurnool, 112; Cuddapah, 200; Gunttoor, 225; Nellore, 100; and in Bellary, where the greatest extent of land is applied to this cultivation, the produce is, cleaned cotton, 46 lbs., or seed cotton 184 lbs. The principal collector of Coimbatore remarks that it is difficult to afford any satisfactory information in this respect; the New Orleans sown by him for experimental purposes yielded 1,200 lbs. of seed cotton per cawnie, equal to $1\frac{5}{16}$ acre, while the country produced a most scanty crop. Dr. Royle gives the average of Indian cotton at 100 lbs. per acre of cleaned cotton, and this he regards as "a small return."

11. On the whole, it appears that as relates to the Company's territories there is no want of land suited for cotton cultivation, particularly in the four principal districts; that while the state of the internal communications which offer so much obstruction to the transit of this essential staple of India to the coast will continue to engage, as it has heretofore done, the attention of the local Government, the measure of greater importance necessary to ensure the improvement and extension of the cotton culture of the country would seem to rest solely on "an increased and certain demand and remunerating prices," an opinion expressed by all who have heretofore written on the subject.

12. The Government then call attention to the suggestions which had been made with a view to their being brought into practical operation so far as local means and circumstances admit. There are experimental establishments at Coimbatore and Tinnevely under the management of officers whose aid and advice will always be available as well as the machinery and seed in their charge, and the Governor in Council will cheerfully receive and encourage every disposition which may be shown to promote this object; indeed considering the importance attached by the Manchester Commercial Association to "careful picking" and "effectual cleaning," he thinks much may be accomplished by the local officers taking an active part in impressing these points on the native mind, and directing their attention to the advantages of good seed, of improved culture, and of keeping unmixt the superior and the inferior kinds of cotton produce.

Revenue Department, No. 2 of 1849.

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

IN continuation of our letter in this department, dated 5th December 1848, No. 88, we have the honour to transmit copy of one from the Resident at Travancore

Des. to Cons., 16
January 1849,
No. 28.

Travancore and Cochin, furnishing the replies of the Dewans of those States to the queries relating to the cotton cultivation of India, conveyed in your despatch of the 10th November 1847, No. 25.

We have, &c.

Fort St. George,
13 January 1849.

(signed) *Henry Pottinger.*
G. H. Berkeley.
D. Elliott.

No. 40.

From Major-general *W. Cullen*, Resident at Travancore and Cochin, to
Sir *H. C. Montgomery*, Bart., Officiating Chief Secretary to Government,
Fort St. George.

Sir,

I HAVE the honour to acknowledge receipt of your letter, No. 55, of the 14th January last, with its enclosure, and I now beg to transmit copies of the replies of the dewans of Travancore and Cochin to the queries of the Honourable the Court of Directors, on the subject of cotton culture under these two sirkars.

Absolutely trifling as is the quantity of cotton produced in these provinces, the reports originally forwarded to me contained several little errors and omissions, and I was obliged to refer more than once for explanation.

The only cotton grown in the Cochin territory is in the small insulated talook of Chittoor, lying in the very middle of the great break in the ghats at Palghat-cherry. A large portion of this small district is waste, and occupied by forest and jungle, and unsuited to irrigation, and therefore applicable to cotton cultivation. No attention, however, had been directed to this subject, as observed by the dewan of Cochin, until within the last 10 years.

I am not aware of how far the fall of rain may affect the culture of cotton, but the fall in the Chittoor district is very considerable, not less than about 60 inches per annum, while in Coimbatore and Tinnevely it is seldom, I believe, so much as 25 inches.

Only 240 acres are stated by the dewan as under cotton cultivation in Chittoor, but that some thousands of acres might be so applied.

In Travancore the dewan states there are about 770 acres under actual cultivation; and he adds, that about 400 acres more might be applied to that purpose.

The cotton cultivation in Travancore is quite at the southern extremity of the province, lying, in fact, all along the Tinnevely frontier, or what are called the Arambooly Lines, to the very extremity of the Peninsula at Cape Comorin. It partakes, therefore, very much of the climate of Tinnevely, and has very little more rain, but in this respect is probably rather more favourably situated.

It has appeared to me, however, that there are considerable tracts of land still farther to the westward that might answer for cotton were its cultivation an object.

I have already taken the liberty to draw the attention of Government to the facilities recently afforded for the transport of cotton from Coimbatore by carts to the port of Cochin, through the Cochin Sirkar territory.

(signed) *W. Cullen, M.G.,*
Resident.

Resident's Office, Trichoor,
28 December 1848.

TRAVANCORE.

REPLIES to the Queries from the Honourable the Court of Directors respecting the Cultivation of Cotton in Travancore.

Query 1. WHAT is the price of cotton freed from seed at the principal mart or marts in your district?

Reply. There is a market at Mylandy, and one at Cotar, in the Agasteeswerom district, south of Travancore, but no cotton is brought to either of these marts freed from seed.

The uncleaned cotton, the produce of Travancore, is sold at the above two marts at an average rate of 15 annas per thoolam of $14\frac{29}{64}$ lbs. English.

2. At what price does the ryot sell his cotton cleaned or uncleaned, and with or without advance?

Uncleaned cotton grown in Travancore is sold by the ryot at $\frac{7}{8}$ ths of a Company's rupee per thoolam, or $14\frac{29}{64}$ lbs., and Tinnevely cotton freed from seed is sold at $2\frac{1}{2}$ Company's rupees a thoolam. If any advance is received by the Travancore ryot, a discount of 1 chuckrum, or $6\frac{1}{2}$ pies per thoolam (of $14\frac{29}{64}$ lbs.), is allowed.

3. What is the expense of cleaning cotton by the churka, or foot-roller, or by any other method which may be in use?

The expense of cleaning cotton by the churka is $\frac{7}{8}$ ths of a gally fanam, or 2 annas per thoolam (of $14\frac{1}{2}$ lbs. English), and is paid for by the sale of the seeds. No other method is used for cleaning it.

4. What are the expenses of conveying cotton to the nearest port for shipment?

The expense of conveying 8 thoolams, or 116 lbs. English, of cotton, being one load, from Mylandy to the seaport of Manacoody, $1\frac{1}{2}$ native league, or about 5 English miles, will amount to $\frac{5}{8}$ ths of a gally fanam, or 1 anna 5 pice, or at the rate of half a fanam (1 anna 2 pies) per league. The distance from Cotar to Manacoody is $1\frac{1}{2}$ league, but the hire is the same.

The rate of hire from Thuckalay (Cukkolum district) to the seaport of Colacke, 8 miles, is one quarter of a rupee for 10 thoolams, or $144\frac{9}{32}$ lbs. of cotton.

5. What is the average produce of cotton per beega or acre?

The average produce of uncleaned cotton per acre is 35 thoolams, or $505\frac{57}{64}$ lbs.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried on in the event of an increased demand?

There are at present about $771\frac{1}{2}$ acres in the districts of Agasteeswerom and Thovalay under cultivation with cotton, and there is still land to the extent of about 400 acres capable of being cultivated with this staple.

Cotton is only cultivated in Travancore in the two most southern districts of Agasteeswerom and Thovalay, and immediately on the Tinnevely frontier, where the rains are light compared with the more northern districts; but even to the south cotton is not extensively cultivated, grain being much more profitable, and the land in general suited to wet cultivation.

(signed) V. Kristna Row, Dewan.

Huzzoor Cutcherry, Trevandrum,
20 June 1848.

COCHIN.

REPLIES to the Queries from the Honourable the Court of Directors respecting the Cultivation of Cotton in Cochin.

Query 1. WHAT is the price of cotton freed from seed at the principal mart or marts in your district?

Reply. Three Company's rupees per thoolam, a measure equivalent to $967\frac{1}{2}$ Surat rupees, weight equal to 25 lbs. English.

2. At what price does the ryot sell his cotton cleaned or uncleaned, and with or without advances?

The ryot himself takes his cotton to the mart at Tattamungalom, which is in the vicinity, within ten miles of the place where it is grown. The price of cleaned cotton is given above; that of uncleaned is 10 annas per thoolam; whether advances be made or not, the price is the same.

II.
Madras.

3. What is the expense of cleaning cotton by the churka or foot-roller, or by any other method which may be in use?

Cotton is cleaned by a roller, and the cost is about 11 annas and 5 $\frac{1}{2}$ pice per thoolam (25 lbs. English).

4. What are the expenses of conveying cotton to the nearest port for shipment?

About 2 annas and 7 $\frac{1}{2}$ pice per thoolam (25 lbs.) for conveying it from Tattamungalom to Cochin, a distance of about 80 miles, one-half that distance being by land, and the other half by water.

5. What is the average produce per beega or acre?

Two thoolams and a half of cleaned cotton, or 62 $\frac{1}{2}$ lbs. English per acre.

6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried in the event of an increased demand?

Two hundred and forty acres. No cotton was cultivated in this country till about ten years ago, and then only as an experiment. The cultivation has increased to the above extent gradually, and it will probably increase to a far greater extent when the people become more convinced of the advantage, and better acquainted with the soil most favourable for its growth. There are many thousand acres of uncultivated land in this country, much of which may very probably be adapted to the culture of cotton, and which is not at present capable of irrigation as Nunjah land.

(signed) *Shungra Warriar*, Dewan.
Huzzoor Cutcherry, Ernacolloom in Cochin,
5 August 1848.

Revenue Department.—(No. 56.)

EXTRACT from the Minutes of Consultation, under date 13 January 1849.

READ the following letter from the Resident at Travancore and Cochin, transmitting copies of replies of the Dewans of Travancore and Cochin on the subject of cotton culture under these sirkars.

[Here enter 28th December 1848, No. 40.]

Ordered, that the foregoing letter be transmitted to the honourable the Court of Directors, in continuation of the one to their address, dated 5th December 1848, No 88.

(signed) *H. C. Montgomery*,
Officiating Chief Secretary.

(A true extract.)

(signed) *H. C. Montgomery*,
Officiating Chief Secretary.

Revenue Department.—(No. 5 of 1849.)

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

WE have the honour to transmit, in continuation of our letter in this department, dated 13th January 1849, No. 2, copy of a further communication from the Resident of Travancore and Cochin, correcting some of the statements made in his previous letter, relating to the cotton cultivation of the Cochin territory.

We have, &c.
(signed) *Henry Pottinger*,
G. H. Berkeley,
D. Elliott.

Fort St. George, 10 February 1849.

(No. 3.)

From Major-General *W. Cullen*, Resident at Travancore and Cochin, to Sir *H. C. Montgomery*, Bart., Officiating Chief Secretary to Government, Fort St. George.

Sir,

SINCE my report, No. 40, of the 28th ultimo, on the cultivation of cotton under these Sirkars, I have been enabled to make a short tour of about eight days, in company with the Dewan, over to the Cochin district of Chittoor, in the Palghat opening, and it has afforded me an excellent opportunity of seeing the improving state of that district, and of correcting my previous report on the extent of the cotton cultivation, of which there are certainly not less than 600, instead of only 240 acres, and every prospect of its being increased in a year or two more to 1,000 acres and upwards.

I had made a partial visit to the eastern limit of the district in 1842, on a boundary dispute, and one or two subsequent hurried visits to the other portions of the district, but in 1842, the whole of the eastern half of it appeared to be a dense forest and bamboo jungle, with only a few partial clearings remote from each other.

My present examination of the district was much more complete, as I crossed the whole of it from west to east, and from south to north, and it was delightful to witness the extraordinary extent of clearing and increase of cultivation in every direction. The ground once broken, the ryots of Coimbatore and Palghat, in concert with those of the Cochin Sirkar, are applying for extensive grants of forest land, and are clearing it on every side, and it is chiefly, I believe, to the ryots from Coimbatore that is due the introduction, and certainly the great increase of the cotton cultivation, for which there are large tracts of land peculiarly well adapted; but the whole of the land appears most fertile, and well suited for every kind of produce. Nothing could be more gratifying than the appearance of energy and activity with which the work of clearing and cultivation was going forward; numerous small hamlets also were springing up on all sides.

This great improvement in the district was not even fully known to the Dewan himself. Grants of the land had been made at a mere nominal rate, but he was not aware of the extent that had been cleared.

The more immediate object, however, of my present visit, was to examine into the capabilities of the district for artificial irrigation. On my visit to the east boundary of the district in 1842, I had noticed by the barometer, that the Animalli River, which enters it at that place, was more than 200 feet higher than the same river at Tuttamungalom at its western boundary; subsequent inquiries led me to believe that some dams had formerly existed across the river; and as the Dewan was aware that large tracts of paddy land in the central part of the district were much in want of artificial irrigation, and that still larger portions might be brought under cultivation, we determined to examine it minutely with that view, and I think we have succeeded in establishing the perfect practicability of an extensive system of irrigation from the river.

I have noticed these facts chiefly because they are exclusively the results of barometrical observation. I had previously detached surveyor Armstrong to reconnoitre the country, and take a few preparatory levels, but he met me at Tattamungalum with a report, that his levelling instrument was perfectly useless, owing to the dense forests and bamboo jungles, and that it would have taken him months to have obtained any satisfactory result in that way.

I had brought barometers with me, and took a series of levels on each day's march, or about 70 observations on a distance of between 60 or 70 miles.

There is not only a fall in the river of about 15 or 20 feet per mile, but a corresponding slope also in the general level of the district. The summit level of the Palghat opening being about the line of high road from Polachi to Coimbatore, and the general slope of the country being to the east and west of that line respectively.

(signed) *W. Cullen*, Major-general,
Resident's Office on Circuit, Trichoor, Resident.
25 January 1849.

Revenue Department.—(No. 133.)

EXTRACT from the Minutes of Consultation, under date 10 February 1849.

READ the following letter from the Resident of Travancore and Cochin. Report on a short tour made in company with the Dewan over the Cochin district of Chittoor, with reference to his letter of the 28th ultimo on cotton cultivation.

[Here enter 25th January 1849, No. 3.]

Ordered, that a copy of the foregoing letter be furnished to the Board of Revenue, in view to their communicating to Major F. C. Cotton, if they consider

II.
Madras.

it useful, the information furnished by the Resident, of the practicability of establishing a system of irrigation from the Animalli River.

Ordered also, that the above letter be brought to the notice of the Honourable Court of Directors, in continuation of the Resident's previous report of the 28th December 1848.

(signed) *H. C. Montgomery,*
Secretary to Government.

Revenue Department.—(No. 14 of 1849.)

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

WE have the honour to transmit, in continuation of our letters in this department of the dates noted in the margin,* copy of a letter from Mr. Finnie, the cotton planter in Tinnevely, dated 20th January 1849, replying to the queries relative to the cotton cultivation of India conveyed in your despatch, dated 10th November 1847, No. 25.

2. From our resolutions your Honourable Court will observe, that in regard to the improvement of internal communications, which is adverted to by Mr. Finnie, we have called upon the Board of Revenue, in the department of Public Works, to report what has been done in pursuance of our orders of the 14th July 1846, directing the disbursement of a lac of rupees from the surplus Davastanum Funds, in deposit in Tinnevely, in constructing roads, &c., to connect the cotton districts with the port of Tutacarin.

3. We also transmit copies of letters from Dr. Wight and Mr. Finnie, dated respectively the 20th January and 12th February, replying to our requisition for a report, showing the results of their endeavours to introduce an improved description of cotton, and their proceedings generally with respect to this cultivation. These papers, with those already laid before your Honourable Court complete the information available on the subject, and we solicit your attention to the details they communicate, particularly in the report of Dr. Wight, with regard to the climate and season which he states to be necessary for the successful cultivation of the plant.

Your Honourable Court will observe that, though some of the conclusions of his report are not very consistent, Mr. Finnie would appear to have little or no hope of the success of the American cotton in the part of the country where he is stationed, and that though Dr. Wight seems to have established no broad principle, notwithstanding his experiments during the period he has been employed, he and Mr. Finnie are directly opposed to each other in opinion on all material points.

We have, &c.

(signed) *Henry Pottinger.*
G. H. Berkeley.
D. Elliott.

Fort St. George, 7 March 1849.

(No. 16.)

From *F. B. Elton*, Esq., Acting Collector, to Sir *H. C. Montgomery*, Bart., Officiating Chief Secretary to Government, Fort St. George.

Sir,

I HAVE the honour to forward, for submission to Government, the accompanying original letter and statement, sent in to this office by Mr. Finnie, cotton planter, as his reply to the queries

* To the Honourable Court, 5 December 1848, No. 88. To ditto, 13 January 1849, No. 2. To ditto, 10 February 1849, No. 5.

queries contained in an extract from the despatch of the honourable Court of Directors, No. 25, dated 10th November 1847, regarding cotton.

(signed) *F. B. Elton, Esq.,*
Acting Collector.

Tinnevely, 20 January 1849.

From *T. J. Finnie, Esq.,* Cotton Planter, to *F. B. Elton, Esq.,* Acting Collector,
Tinnevely.

Mr. T. J. FINNIE.

Sir,

I HAD the honour some time ago to receive direct from the Secretary to Government an extract from the Minutes of Consultation, No. 54, under date the 14th January 1848, together with a copy of Dr Royle's memorandum on the culture of cotton in India, and an extract from a despatch of the Honourable Court of Directors, calling for information regarding cotton cultivation.

2. Immediately on the receipt of these documents I devoted careful attention to the subject, referring to the data I had already collected from voluntary habitual attention to such subjects, and I made further particular inquiries among the people. But the great difficulty I experienced in eliciting accurate information on the 5th and 6th questions kept the subject in abeyance. I regret not having submitted such information as I then collected, leaving the other till it could be obtained with some degree of accuracy.

3. I have the satisfaction now to submit the accompanying tabular statement, the greater part of which was made up on the first receipt of the Minute under acknowledgment.

4. The data in reference to the price of cotton freed from the seed, the price of seed cotton, and the cost of separating the seed from the fibre, and the transit, &c., are taken from actual transactions at this place and the adjacent villages, and may, I think, be relied on as correct.

5. The difficulty of arriving at the "average produce" and cost of culture, which I was anxious to include in the statement, may be easily understood when I mention that the ryots will not tell the truth in reference to the first, and the fact that they keep no accounts will account for their inability to communicate accurate information on the subject of cost of production. I have received the most contradictory statements in reference to the amount of produce, but I think Dr. Royle is very near the mark when he says that the produce per acre of land in this country does not amount to an average of 100 lbs. of clean cotton.

It requires nearly 400 lbs. of seed cotton to make one of clean.

6. After a careful analysis of the various contradictory accounts I have received, I am utterly unable to arrive at any satisfactory conclusion as to the actual produce of the districts of Madura and Tinnevely. At first my inquiries were supposed to have something to do with a new regulation of the land tax, and the produce was invariably very low; some gave amounts of produce per chain, which when reduced to acres and lbs., showed 100 lbs. per acre; others 150 lbs., 180 lbs., 190 lbs., 250 lbs. per acre, and all assuring me that they lost by the culture; and when I inquired how they afforded to continue so losing a business from year to year, they saw the absurdity of what they had said; and when I wish to rent a piece of land, the scene is changed; they enumerate the profits arising from a given quantity of land, and then demand that amount of rent, amounting to as much as 50 rupees per acre. From this it will be seen how little confidence is to be placed on Indian agricultural statistics; indeed, knowing as much as I do of the source from which agricultural statistics are derived, I can place no confidence whatever in the voluminous reports on record on the subject. The great discrepancies in the statements already before Government sustain the view I have long entertained as to the incorrectness of agricultural estimates.

7. From personal observation, with some knowledge of such matters, I should say that in either district (it will be borne in mind that I write from the borders of both Tinnevely and Madura), an acre of land that had a "good stand," that is, well filled with plants, and well cultivated, would average, one year with another, between 350 and 400 lbs. of seed cotton, and I have adopted the minimum.

8. The immediate neighbourhood of "Aroopocotta" is really a very good cotton country, and the reported produce, it will be observed, far exceeds the estimated quantity given in the collector's reports; and as the account was obtained from the head man of this place, and corroborated by numerous others, and is really the best authenticated statement I have been able to get, I submit it with some degree of confidence.

9. The people generally neglect the cultivation of their cotton very much, often leaving it in the grass till it becomes yellow, which injures it very materially; and they also postpone sowing till late in the season. I have urged them to attend to early sowings, and care in cultivation; but any improvement in that matter must be the work of time; when they see the advantage they will doubtless attend to it, but we cannot force it on them by example, because the expense of any operations with hired labour would frighten them.

II.
Madras.

10. I have not the means of ascertaining with any degree of accuracy the extent of land under culture; but, in reference to the general question as to the capabilities of India for the production of cotton of the indigenous description, there is no doubt; and that the production could be extended to almost any required quantity is not less certain; and while the exact amount of produce, or the exact cost of production, cannot be arrived at, I feel satisfied that the ryot who employs his own time and that of his family in cultivating the land in cotton derives a handsome profit from it; and though he is, in common with his class, universally precluded from realising a fortune, his means of a comfortable livelihood is secured to him; but if he employs hired labour, the net profits are greatly reduced of course. The ability of the people to deliver the cotton in a beautiful condition, suitable to the English market, without the aid of foreign machinery, I have proved to my own satisfaction, and will prove it to the satisfaction of all; but on this subject I shall dwell in my forthcoming report. I can bear testimony to the value of Dr. Royle's suggestions, and I am happy to find such strong support to the views I have ever maintained in reference to the value and importance of the indigenous cotton, when properly cleaned, as that afforded by Dr. Royle, and Mr. Turner, who is well aware that due encouragement afforded to the people on the part of the manufacturers themselves, is most essential to insure attention to cleanliness. If I had a standing order from a few large manufacturers for a quantity of cotton, at a price that would induce the people to give it extra attention, and deliver it as fast as it is ready, instead of waiting in the hope of higher prices, I could always insure a regular supply, but as the business is now conducted by the merchants, no regularity in quality* can be depended on; for the merchant waits for orders from his constituents, and in the meantime the seeds have been separated from the fibre, and the mixing process duly attended to, and the otherwise good cotton made bad. To insure a good article, we must attend to it from the time it opens in the field, through all its stages, to the manufacturer's store in England. Until such inducement and encouragement are afforded the people, the efforts of Government alone must progress very slowly; but with such encouragement and co-operation, with the measures adopted by Government, much may be done to improve and extend permanently cotton culture in India.

11. The demand here at this time is far above the supply,† and very high prices are paid for the common cotton, but this is an unnatural state of the market, and affords no criteria for the future stability of the trade in these districts, and consequently no abiding encouragement to the producers to extend the culture; as soon as the extraordinary demand for exchange ceases, the market will again become natural. What we want to insure stability is a permanent demand at a reasonable and fair rate for a clean article. The manufacturers who use the article extensively alone can afford that regular demand for a good quality, by giving a standing order for the supply they require annually.

12. In regard to the means of transit, I beg respectfully to offer a few remarks on the state of the roads between the main cotton districts and the main shipping port Tutacurin.

13. If we wait until macadamized roads can be completed, it will be a long time before they are available for the greater facilities of the cotton trade. I would respectfully suggest that the road which has already been sanctioned for more than two years, and which has progressed no further than the survey of the route, be opened for use as speedily as possible.

14. I am well aware of the value of good roads, but I do not place the great stress upon raised and metalled roads for the common traffic of this country that is placed upon such by the great majority of people: give us, the ryots, metalled roads when you can, but we want passable roads for immediate use; and I maintain that a little levelling of the inequalities, cutting off inconvenient angles, the filling up of mud holes, and the bridging for passing the nullahs, are now the great desiderata, and I hope these will be the first care of the executive in that department.

15. The road to which I have alluded can be of no advantage to this part of the country, for the route that is now pursued between this and Tutacurin does not join that line until near the port; a road might be made from here to join it at a point nearer to this place, and about 20 or 25 miles from Tutacurin, without greatly increasing the distance to the port. It is pretty well known that the people are not sufficiently satisfied of the advantages to go much out of their way, even for a good road; and I would respectfully bring to the notice of Government the importance of having both these lines put into a passable condition as soon as possible, and I shall be glad, in communication with the collector and civil engineer, to take an active part in the construction of the road from this place.

16. I have

* I may remark here that I learn from the gentlemen at Tutacurin that more good cotton was received there, in 1848, than was ever known before; and I conclude that our efforts are resulting, in some degree, beneficially.

† Seed cotton is brought from Coimbatore to this place for sale, to aid in supplying the demand. It would be well to encourage the people in Coimbatore to separate the seed properly from the cotton, by which they save the carriage on heavy articles (the seed) which are not required here; but seed cotton is taken to Travancore from Coimbatore at a profit, because the seed is equally valuable in the former country.

16. I have recommended the plan for roads that we adopt in America, where, if we waited until all the roads on which cotton is taken to market, are macadamized, we should send but little to market for the next hundred years. I repeat, that what is most required at present, is a passable road; all travelling ceases in very wet weather, but the road, generally, soon dries sufficiently for the native bandies, and they are only detained by numerous bad places that remain impassable for a long time; if these were put in order, the people would have little to complain of in reference to roads, and ships would not so often be detained in consequence of the total stoppage of land carriage, loaded with the great staple, which ought to be sent to market as soon as possible after it is produced.

II.
Madras.

Aroopocotta, 13 January 1849.

(signed) T. J. Finnie,
Cotton Planter.

TABULAR STATEMENT showing the Cost of SEED COTTON with and without Advance, and also the value of Cleaned Cotton with and without Advance, per Candy of 500 lbs., and Cost of separating the Seed from a Candy of Cleaned Cotton by the Churka, and Village Packing Charges, Cost of separating the Seed from a Candy of Cleaned Cotton by the Gin, and Village Packing Charges, but excluding cost of Houses, Machinery, Management, &c., &c., Cart hire from this neighbourhood to Tutacotin, and the produce of Land per acre, as transacted at Aroopocotta by the Chitties; i.e. the under-mentioned prices were paid by the Chitties to the brokers for Cleaned Cotton. The transaction in Seed Cotton was between the brokers and the ryots.

YEAR.	Price of Seed Cotton, with Advance, per Candy of 500 lbs.,		Average price of Seed Cotton, with Ad- vance, per Candy.	Price of Seed Cotton, without Advance, per Candy of 500 lbs.,		Average price of Seed Cotton, without Ad- vance, per Candy.	Price of Cleaned Cotton, with Advance, per Candy of 500 lbs.,		Average price of Cleaned Cotton, with Ad- vance, per Candy.	Price of Cleaned Cotton, without Advance, per Candy of 500 lbs.,		Average price of Cleaned Cotton, without Ad- vance, per Candy.
	From	To		From	To		From	To		From	To	
	C.Rs. a. p.	C.Rs. a. p.	C.Rs. a. p.	C.Rs. a. p.	C.Rs. a. p.	C.Rs. a. p.	C.Rs. a. p.	C.Rs. a. p.	C.Rs. a. p.	C.Rs. a. p.	C.Rs. a. p.	C.Rs. a. p.
1846	10 9 -	11 7 1	11 - -	10 9 -	12 5 2	11 7 1	41 13 7	46 4 1	44 - 10	44 - 10	52 13 10	48 7 4
1847	11 7 1	12 5 2	11 14 1	11 7 1	15 13 6	13 10 3	44 - 10	48 7 4	46 4 1	46 4 1	57 4 -	51 12 -
1848	10 9 -	12 5 2	11 7 1	11 7 1	13 10 4	12 8 8	41 13 7	46 4 1	44 - 10	44 - 10	55 - 10	49 8 5

YEAR.	Cost of Separating the Seed from the Fibre by the Churka, per Candy of Cleaned Cotton.	Packing Cotton into bunoloo, according to native custom, including Cloth, Twine, and Labour, with extra beating.	Cost of Separating the Seed from the Fibre by the Gin, exclusive of Houses, Machinery, &c., by hired labour,* per Candy.	Cost of Separating the Seed from the Fibre by the Gin, exclusive of Houses, Machinery, &c., by contract labour, per Candy.*	Packing Ginned Cotton by contract, including Cloth, Twine, and Labour, no extra beating required.	Cart-hire to Tutacotin on a Candy of Cleaned Cotton,		Average yield, 1st qua- lity of Land, per Acre.			Average yield, 2d qua- lity of Land, per Acre.			Average yield, 3d qua- lity of Land, per Acre.			Average yield, in Madura, per Acre, about,	Average yield, in Tinne- vely, per Acre, about,
						From	To	Aroopocotta.			Aroopocotta.			Aroopocotta.				
	C. Rs. a. p.	C. Rs. a. p.	C. Rs. a. p.	C. Rs. a. p.	C. Rs. a. p.	C. Rs. a. p.	C. Rs. a. p.	C. Rs. a. p.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
1846	- - -	- - -	- - -	- - -	- - -	1 3 10	1 14 10	-	-	-	-	-	-	-	-	-	-	
1847	4 14 8	2 2 9	10 3 10	*6 14 4	2 1 -	1 3 10	1 14 10	421	329	311	350	350	350	350	350	350	350	
1848	- - -	- - -	- - -	- - -	- - -	1 3 10	2 7 7	-	-	-	-	-	-	-	-	-	-	

* Without reference to the cost of Seed Cotton, which is always higher when purchased by us, for we must procure it through the brokers.

The following are the Questions asked by the Honourable Court of Directors, and I trust they will be found correctly answered in the above Table.

Question 1. What is the price of cotton freed from seed at the principal mart or marts in your district?

2. At what price does the ryot sell his cotton, cleaned or uncleaned, and with or without advances?
3. What is the expense of cleaning cotton by the churka or foot-roller, or by any other method which may be in use?
4. What are the expenses of conveying cotton to the nearest port for shipment?
5. What is the average produce of cotton per beega or acre?
6. What is the quantity of land under cultivation with cotton, and to what extent is it probable that the cultivation could be carried, in the event of an increased demand?

Note.—The sixth question is answered as near as is practicable in the body of the foregoing letter.

A STATEMENT showing the price of COTTON at Tutacorin for the last three years, as paid in transactions by European Agents:

Y E A R S.	Price per Candy of Cotton, as ordinarily delivered by the Chitties,		Average Price per Candy of Cotton.
	From	To	
	C. Rs. a. p.	C. Rs. a. p.	
1846 - - -			
1847 - - -			
1848 - - -			

Camp, Aroopocottah,
13 January 1849.

(signed) T. J. Finnie,
Cotton Planter.

(No. 53 of 1849.)—Revenue Department.

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

IN continuation of our letter in this department, dated 19th September 1848, No. 69,* we have the honour to transmit for your information copy of a letter from the Board of Revenue, reporting on the extent of the different descriptions of land applied to the cultivation of cotton in the cotton-growing provinces.

It will be observed that the total extent of land under cotton cultivation is 692,372 acres, of which 489,591 acres, or $70\frac{3}{4}$ per cent., are Government lands, and the remainder lands free from assessment or paying a light quit rent. The rent-free lands alone are in the proportion of $17\frac{1}{2}$ per cent. to the total extent.

We have, &c.
(signed) Hy. Pottinger.
D. Elliott.

Fort St. George, 21 September 1849.

(No. 382.)

To *J. F. Thomas, Esq.*, Chief Secretary to Government.

Sir,

Para. 1. WITH reference to the observations of Government in Para. 4, of an extract from the Minutes of Consultation dated the 4th of September last, the Board of Revenue called upon the several collectors of cotton-growing provinces to furnish a statement exhibiting the extent of land ain, rent-free, and held on favourable terms, which is applied to the cultivation of that product in their respective districts, and to afford any information they might be able to supply in respect to the cultivation of cotton in enam lands. In Cons., 18 September 1848.

2. From the replies received to this requisition,* which are herewith forwarded for the information of Government, the Board have had prepared the accompanying general statement, exhibiting at one view the extent of the above several descriptions of lands in each district named. It should be observed, however, that while the particulars in the majority of the several districts show the quantity of land upon which cotton is cultivated for one year only, and that generally for Fusly 1257, the returns from Bellary and Kurnool present the average result calculated on a term of five years.

3. As regards the rent-free lands in Guntoor, the Collector states that "the enamdars are generally Bramins, who let their enam lands on terms a little below the ordinary rate of the Government assessment, so that the cotton grown on them comes to market very nearly on a par with the cotton grown on circar land." In Bellary, owing to the great abundance of both enam and circar land available for the culture of cotton, the rent generally paid by the actual cultivator to the enamdar, is represented "to be not more than one-half the survey assessment." The agent in Kurnool remarks, that as the enam lands in his district are usually of inferior quality, "the rates paid by cultivating ryots to enamdars are very considerably below those levied on ain land of an equally good description."

4. In the period embraced in the report from the Collector of Tinnevelly, viz., Fusly 1257, it appears that cotton was not cultivated on enams, subject to quit rent, or on lands held on favourable terms, the extent of surva maniems so occupied, appears also to have been comparatively limited.

Revenue Board Office, Fort St. George,
23 August 1849.

(signed) *T. Pycroft*,
Secretary.

* From Guntoor, 9 February, in Cons., 15 March 1849. From Bellary, 9th in Cons., 19 October 1849. From Cuddapah, 17th in Cons., 20 November 1848. From Kurnool, 26th October, in Cons., 2 November 1848. From Tanjore, 2d, in Cons., 9 October 1848. From Madura, 25 May, in Cons., 6 August 1849. From Tinnevelly, 19th, in Cons., 25 January 1849. From Coimbatore, 7th, in Cons., 20 November 1848.

STATEMENT showing the Total Extent of Land applied to the CULTIVATION of Cotton in the undermentioned Districts.

DISTRICTS.	CIRCAR LAND.			SURVA ENAMS.			ENAMS PAYING QUIT RENT.				TOTAL.		
	Extent.		Assessment.	Extent.			Extent.		Quit Rent.		Extent.		Assessment and Quit Rent.
	<i>Cans.</i>	<i>Acres.</i>	<i>Rs.</i>	<i>Cs.</i>	<i>Acres.</i>	<i>g. a.</i>	<i>Cs.</i>	<i>Acres.</i>	<i>g. a.</i>	<i>Rs.</i>	<i>Cs.</i>	<i>Acres.</i>	<i>Rs.</i>
Guntoor -	-	49,715	7 15	-	8,114	7 1	-	27,270	0 9	12,452	-	85,099	85,094
Bellary -	-	1,33,917	0 0	-	72,500	0 0	-	25,448	0 0	8,200	-	2,36,865	1,50,175
Cuddapah -	-	45,282	23 2	-	20,424	10 4 $\frac{1}{2}$	-	9,034	38 6 $\frac{1}{2}$	16,331	-	74,741	75,645
Kurnool -	-	42,522	7 0	-	5,796	13 4	-	11,632	0 12	4,569	-	59,950	60,417
Tanjore -	-	4,874	10 0	-	40	14 0	-	779	16 0	498	-	5,694	9,054
Madura -	19,204	25,393	34 8 $\frac{1}{2}$	2,156	2,852	4 4 $\frac{1}{2}$	177	234	29 4	133	21,538	28,480	45,988
Tinnevely -	66,516	87,955	1 10 $\frac{1}{2}$	1,722	2,278	12 3 $\frac{1}{2}$	-	-	-	-	68,238	90,233	73,333
Coimbatore	71,791	94,931	5 7 $\frac{1}{2}$	8,618	11,396	38 8	3,765	4,979	16 13 $\frac{1}{2}$	1,198	84,176	1,11,307	1,15,052
TOTAL -	1,57,511	4,89,591	9 11 $\frac{1}{2}$	12,498	1,23,402	19 10 $\frac{1}{2}$	3,943	79,378	21 13 $\frac{1}{2}$	43,383	1,73,953	6,92,372	6,14,761

N.B.—In Madura, Tinnevely and Coimbatore the extent of land under cotton cultivation is given in cawnies, which has been converted into acres in the above statement, to correspond with the returns received from the other districts.

The present results do not generally correspond with the returns previously furnished by the Collectors, owing to the present calculation having reference to the cultivation of a later period.

(signed) T. Pycroft, Secretary.

To *T. Pycroft*, Esq., Secretary to the Board of Revenue, Fort St. George.

II.
Madras.
GUNTTOOR.

Sir,

I HAVE the honour to acknowledge the receipt of the extract from the Board's Proceedings, dated the 18th September last, with the extract from the Minutes of Consultation of Government, dated the 4th of that month, and to forward a statement of the relative extent of sirkar and enam land, cultivated with cotton, in the form therewith furnished. The extent of cultivation is entered from the actual examination of the fields made during the current season. In the talooks of Tenally and Repully, cotton is occasionally sown to a very limited extent among red paddy, but this, from its being so inconsiderable, has not been taken into account.

2. It does not appear that there is any peculiarity requiring notice in the cultivation of cotton on enam lands. The enamders are generally Brahmins, who let their enam lands to tenants at terms a little below the ordinary rate of Government assessment, so that the cotton grown on them comes to market very nearly at a par with cotton grown on sirkar land.

(signed) *H. Stokes*,
Collector.

Guntoor Zillah, Collector's Office, Datchapully,
9 February 1849.

STATEMENT showing the Total Extent of LAND applied to the CULTIVATION of COTTON in the District of Guntoor, Fusly 1258.

TALOOKS.	CIRCAR LAND.		SURVA ENAMS.	ENAMS PAYING QUIT RENT.		TOTAL.	
	Acres.	Assessment.	Acres.	Acres.	Quit Rent Assessment.	Acres.	Assessment and Quit Rent.
	<i>A. c. v.</i>	<i>Rs. a. p.</i>	<i>A. c. v.</i>	<i>A. c. v.</i>	<i>Rs. a. p.</i>	<i>A. c. v.</i>	<i>Rs. a. p.</i>
1. Pruttipad - -	83 19 14	153 8 9	13 18 10	19 6 12	4 10 6	116 5 4	158 3 3
2. Martoor - - -	526 29 0	498 13 7	144 18 0	70 35 0	19 14 4	742 2 0	518 11 11
3. Mungalagherry -	2,335 26 0	4,936 4 2	556 34 0	376 33 0	172 5 5	3,269 13 0	5,108 9 7
4. Bapetla - - -	—	—	—	—	—	—	—
5. Pounoor - - -	12 11 0	19 12 5	0 13 0	- - -	- - -	12 24 0	19 12 5
6. Repully - - -	—	—	—	—	—	—	—
7. Tenaly - - -	—	—	—	—	—	—	—
8. Guntoor - - -	2,585 0 0	3,323 4 -	317 0 0	201 0 0	72 12 -	3,103 0 0	3,396 - -
9. Coorapad - - -	8,103 8 8	12,741 8 11	1,775 5 0	1,124 10 12	284 8 2	11,002 24 4	13,026 1 1
10. Condaveed - -	5,151 13 5	9,139 12 2	1,354 12 4	1,038 37 0	402 3 7	7,544 22 9	9,541 15 9
11. Nursarowpella -	4,314 30 10	6,037 13 1	1,604 2 14	1,100 29 15	258 1 6	7,019 23 7	6,295 14 7
12. Innacondah - -	5,608 9 10	5,381 13 7	2,066 0 5	1,199 16 2	312 1 1	8,873 26 1	5,693 14 8
13. Datchapully - -	9,455 2 0	14,496 14 4	240 13 0	11,120 13 0	5,684 1 3	20,815 28 0	20,180 15 7
14. Timmerecottah -	11,539 18 0	15,912 7 9	42 10 0	11,018 19 0	5,242 14 11	22,600 7 0	21,154 6 8
	49,715 7 15	72,642 - 9	8,114 7 1	27,270 0 9	12,452 8 9	85,099 15 9	85,094 9 6

Guntoor Zillah, Collector's Office, Datchapully, }
9 February 1849.

(signed) *H. Stokes*,
Collector.

To *T. Pycroft*, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

1. I HAVE the honour to acknowledge the receipt of the Board's Proceedings, of date the 18th ultimo, with Para. 4 of the Minutes of Consultation, dated 4th September 1848, "calling for a statement, exhibiting the extent of land ain (rent-free), and held on favourable terms, which is applied to the cultivation of cotton in the Bellary Province."

BELLARY.

II.
Madras.
15 April 1847.

2. In the statement prepared according to the form received with the Board's letter of the 18th January 1847, Mr. Mellor entered the extent of land cultivated with cotton as 2,36,865 acres, of which he stated circar land to the 1,38,917 acres, and enam land 97,948 acres.

3. The information now called for by the Board, distinguishing enam land cultivated with cotton as rent-free, or paying a quit rent, it would take a great time to prepare with exactness, and I trust the statement now sent, which, as regards the enam lands, is an estimate of each class, will answer the purpose. The amount of circar land, and the total amount of enam, is correct according to actual accounts.

4. There is abundance of enam, as well as circar land, that is capable of being cultivated with cotton. The rent generally paid by the actual cultivator to the owner of the enam is not more than one-half the survey assessment, which is 1,51,683 rupees, that paid for the circar land is one-fourth less than the assessed value.

(signed) C. Pelly,
Acting Collector.

Bellary, Collector's Office,
9 October 1848.

STATEMENT showing the Total Extent of LAND applied to the CULTIVATION of COTTON in the Bellary Division of the Ceded Districts.

	CIRCAR LAND.				ENAMS		TOTAL.		REMARKS.
					Paying Quit Rent.				
	Acres.	Assessment after deducting the Established Remissions of One-fourth.	Total	SURVA ENAMS.	Acres.	Quit Rent.	Acres.	Assess-ment and Quit Rent.	
			ENAM Land.						
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
Average extent of cotton cultivation during the period of five years, from Fusly 1251 to 1255, as entered in the Statement transmitted to the Board on the 15th April 1847		Co.'s Rs.	Acres.	Acres.		Co.'s Rs.		Co.'s Rs.	The amount of Surva and Jodee Enams respectively, being an Estimate of the whole, is entered in italics.
	1,38,917	1,41,975	97,948	72,500	25,448	8,200	2,36,865	1,50,175	

Bellary, Collector's Office,
9 October 1848.

(E. E.)

(signed) C. Pelly, Acting Collector.

To T. Pycroft, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

CUDDAPAH.

AGREEABLY to the order contained in the extract from the Proceedings of the Board of Revenue, dated 18th September last, which accompanied the extract from the Minutes of Consultation, dated 4th idem, I have the honour to forward a statement in the form required, exhibiting the extent of land, ain, rent-free, and held on favourable terms, which is applied to the cultivation of cotton in this district.

(signed) J. H. Cochrane,
Collector.

Cuddapah, Collector's Office,
17 November 1848.

STATEMENT showing the Total Extent of LAND applied to the CULTIVATION of COTTON in the District of Cuddapah.

NAMES of TALOOKS.	CIRCAR LAND.		SURVA ENAMS.	ENAMS PAYING QUIT RENT.		TOTAL.	
	Cawnies, or Acres.	Assessment.	Cawnies, or Acres.	Cawnies, or Acres.	Quit Rent.	Cawnies, or Acres.	Assessment and Quit Rent.
		<i>Rs. a. p.</i>			<i>Rs. a. p.</i>		<i>Rs. a. p.</i>
1. Cumbum - -	1,986 39 7	1,859 15 -	1,421 14 7½	226 38 4½	478 - -	3,635 12 3	4,411 7 11
2. Doopaud - -	2,208 24 4	1,929 11 7	1,902 29 12	78 23 10½	90 3 -	4,189 37 10½	3,845 3 8
3. Budwail - -	1,933 10 13	2,132 13 5	833 22 12	302 37 4	338 8 8	3,069 30 13	3,445 6 4
4. Jummalmudgoo -	10,657 7 13½	15,333 3 11	4,237 13 8½	1,100 25 9½	1,796 14 1	15,995 6 15½	23,752 11 10
5. Doovoor - -	4,575 15 1¾	7,368 11 3	3,059 18 6½	1,785 8 5½	3,815 10 7	9,420 1 14	17,479 8 7
6. Koilgoontlah - -	14,092 36 5½	22,533 6 2	6,959 15 14	5,321 35 2	9,604 1 -	26,374 7 5½	42,466 13 2
7. Chitwail - -	-	-	-	-	-	-	-
8. Sidhout - -	186 24 12½	451 1 10	30 23 15	- - -	- - -	211 8 11½	533 13 2
9. Chennoor - -	647 33 5	664 7 5	226 25 14	- - -	- - -	874 19 3	884 7 11
10. Comalapoor - -	1,709 33 7½	1,986 12 8	943 16 11½	213 30 15½	202 10 10	2,867 1 2½	3,283 8 2
11. Goorumcondah -	137 23 11½	215 - 9	26 11 9½	4 39 3½	5 8 2	168 34 8½	245 5 8
12. Muddenpully - -	619 36 9	319 2 1	214 18 0	- - -	- - -	834 14 9	455 - 9
13. Poolevendlah - -	5,545 11 10½	3,982 5 8	338 4 10½	- - -	- - -	5,883 16 5	4,225 11 9
14. Royachoty - -	987 5 13½	536 14 -	230 34 11½	- - -	- - -	1,218 0 9	674 3 1
TOTAL - - -	45,282 23 2	59,313 9 9	20,424 10 4½	9,034 38 6½	16,331 8 4	74,741 31 13½	1,05,703 6 -

Cuddapah, Collector's Office,
17 November 1848.

(signed) J. H. Cochrane,
Collector.

To T. Pycroft, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

1. I HAVE the honour to submit a statement regarding cotton cultivated on enam lands, prepared in the form prescribed by your Board's order, dated 18th ultimo.

KURNOOL.

2. In explanation of a discrepancy apparent between the quantity of circar land cultivated with cotton, as shown in my communication of the date noted marginally, and the statement now forwarded, I beg to observe that the aggregate number of acres formerly specified was that of land on which only cotton had been grown, whilst that exhibited in the statement accompanying this address, includes the area of land on which a mixed crop of cotton and corra was raised.

31 Dec. 1847.

Acres 54,191, 35 c.
Acres 2,12,610, 35½ c.

3. The statement has been thus prepared owing to the accounts before me not admitting of its being ascertained on what extent of enam nothing but cotton was produced, and what portion was cultivated with both cotton and corra.

4. The former statement had unavoidable reference to the area of circar land on which nothing but cotton had been cultivated, because it was necessary to show the average actual produce per acre.

296—Sess 2.

H 4

5. Generally,

II.
Madras.

5. Generally, the enams in this district do not comprise lands of the first quality. The average outturn of the cotton crops raised thereon is consequently below that of cotton produce realised on circar ground; but the rates paid by cultivating ryots to enamdars are very considerably below those levied on ain land of an equally good description. These enams are almost invariably taken up by ryots holding circar pottahs, and it has been satisfactorily established that without the aid of profits derived from these highly assessed enams, there would be difficulty in bringing to account the kists due for Government lands

Kurnool District,
Agent's Office, Circuit Cutcherry, Nundicotcoor,
25 October 1848.

(signed) *H. D. Phillips,*
Agent to the Governor.

STATEMENT showing the Total Extent of LAND applied to the CULTIVATION of COTTON in the District of Kurnool.

FUSLIES.	CIRCAR LAND.			SURVA ENAMS.		ENAMS PAYING QUIT RENT.			TOTAL.		
	Acres.	Coontahs.	Assessment.	Acres.	Coontahs.	Acres.	Coontahs.	Quit Rent.	Acres.	Coontahs.	Assessment and Quit Rent.
			<i>Rs. a. p.</i>					<i>Rs. a. p.</i>			<i>Rs. a. p.</i>
1252 - - -	35,767	20½	49,178 5 6	4,408	25½	9,264	16½	3,908 8 -	49,440	23	53,086 13 6
1253 - - -	34,402	30½	45,568 10 8	4,210	38½	8,557	6½	3,505 7 5	47,170	35½	49,074 2 1
1254 - - -	43,753	38½	55,537 5 1	5,454	7	10,724	18½	4,184 3 9	59,932	23½	59,721 8 10
1255 - - -	48,445	33½	64,135 7 7	7,113	9½	13,137	22½	5,031 9 3	68,696	25½	69,167 - 10
1256 - - -	50,240	32½	64,824 13 2	7,794	25	16,476	20½	6,215 8 4	74,511	37½	71,040 5. 6.
	2,12,610	35½	2,79,244 10 -	28,981	26	58,160	4½	22,845 4 9	2,99,752	25½	3,02,089 14 9
Lands cultivated with cotton only }	54,191	35	65,997 5 11	-	-	-	-	-	-	-	-
Lands cultivated with both cotton and corra - }	1,58,419	½	2,13,247 4 1	-	-	-	-	-	-	-	-
	2,12,610	35½	2,79,244 10 -	-	-	-	-	-	-	-	-
Average - - -	42,522	7	55,848 14 9	5,796	13½	11,632	¾	4,569 1 -	59,950	21	60,417 15 9

Kurnool District,
Agent's Office, Circuit Cutcherry, Nundicotcoor,
26 October 1848.

(E. E.)

(signed) *H. D. Phillips,*
Agent to the Governor.

To the Secretary to the Board of Revenue, Fort St. George.

TANJORE.

Sir,
With reference to the extract from the Proceedings of the Board of the 18th ultimo, I have the honour to forward a statement, filled up as per form, showing the extent of land, enam, and under favourable assessment, on which cotton was cultivated in Fusly 1256. The extent now separately exhibited was included in that reported in my letter of the 21st December 1847.

Tanjore, Vullum, 2 October 1848.

(signed) *J. F. Bishop,*
Collector.

STATEMENT showing the Total Extent of LAND applied to the CULTIVATION of COTTON in the District of Tanjore, for Fusly 1256.

CIRKAR LAND.		SURVA ENAM.	ENAMS PAYING QUIT RENT.		TOTAL.	
Extent.	Assessment.	Extent.	Extent.	Quit rent.	Extent.	Assessment and Quit rent.
<i>Acre. g.</i>	<i>Rs. a. p.</i>	<i>Acre. g.</i>	<i>Acre. g.</i>	<i>Rs. a. p.</i>	<i>Acre. g.</i>	<i>Rs. a. p.</i>
4,874 10	8,556 3 7	40 14	779 16	498 - 3	5,694 0	9,054 3 10

Tanjore, Vullum,
2 October 1848.

(signed) *J. F. Bishop,*
Collector.

To *T. Pycroft*, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

WITH reference to the Board's proceedings of the 18th September 1848, annexing extract from the Minutes of Consultation of the 4th idem, I have the honour to transmit a statement exhibiting the extent of land, ain, rent-free, and held on favourable terms, cultivated with cotton in Fusly 1257, some columns being added to those in the form therein sent.

MADURA.

I regret that a delay in the transmission of the account from the Ramnad zemindary has delayed this statement so long.

Madura, 25 May 1849.

(signed) *R. D. Parker,*
Collector.

STATEMENT showing the Total Extent of LAND applied to the CULTIVATION of COTTON in the Districts of
Madura and Dindigul, for Fusly 1257.

COTTON CULTIVATION IN AYEN LANDS.												
TALOOKS.	Cikkar Land.		Surva Enam.		Enams paying Quit rent.			TOTAL.			TOTAL AYEN AND ENAM.	
	Cawnies or Acres.	Assessment.	Cawnies or Acres.	Assessment.	Cawnies or Acres.	Assessment.	Amount of Quit rent.	Cawnies or Acres.	Assessment.	Cawnies or Acres.	Assessment.	
	Cs. as.	Rs. a. p.	Cs. as.	Rs. a. p.	Cs. as.	Rs. a. p.	Rs. a. p.	Cs. as.	Rs. a. p.	Cs. as.	Rs. a. p.	
1. Madacolum -	-	-	-	-	-	-	-	-	-	-	-	
2. Teroomungalum -	14,764 14	39,013 15 6	2,140 13 1/2	5,626 7 8	177 8 1/2	453 - 4	133 9 10	2,318 5 1/2	6,079 8 -	17,983 3 1/2	45,693 7 6	
3. Meyloor -	43 2 1/2	76 14 5	-	-	-	-	-	-	-	43 2 1/2	76 14 5	
4. Ramagherry -	445 15	765 1 2	2 3 1/2	2 14 3	-	-	-	2 3 1/2	2 14 3	448 2 1/2	767 15 5	
	15,253 13 1/2	39,855 15 1	2,143 0 1/2	5,629 5 11	177 8 1/2	453 - 4	133 9 10	2,320 9	6,082 6 3	17,574 8 1/2	45,938 5 4	
5. Taudicumboo -	334 9 1/2	450 9 2	-	-	-	-	-	-	-	334 9 1/2	450 9 2	
6. Jyempully -	1,796 11 1/2	2,963 4 5	-	-	-	-	-	-	-	1,796 11 1/2	2,963 4 5	
7. Thencurray -	978 9	1,449 4 7	6 8 1/2	12 7 11	-	-	-	6 8 1/2	12 7 11	985 1 1/2	1,461 12 6	
8. Nellacotay -	840 4 1/2	1,136 1 -	7 5	10 3 -	-	-	-	7 5	10 3 -	847 8 1/2	1,140 4 -	
	3,950 2 1/2	5,909 3 2	13 13 1/2	22 10 11	-	-	-	13 13 1/2	22 10 11	3,964 0 1/2	6,021 14 1	
TOTAL - -	19,204 1 1/2	45,855 2 3	2,156 14 1/2	5,632 - 10	177 8 1/2	453 - 4	133 9 10	2,334 6 1/2	6,105 1 2	21,538 8 1/2	51,960 3 5	
Ramnad zemindary -	-	-	-	-	-	-	-	-	-	-	-	
Shevagunga zemindary	-	-	-	-	-	-	-	-	-	-	-	
GRAND TOTAL -	19,204 1 1/2	45,855 2 3	2,156 14 1/2	5,632 - 10	177 8 1/2	453 - 4	133 9 10	2,334 6 1/2	6,105 1 2	21,538 8 1/2	51,960 3 5	

CULTIVATION IN ENAM VILLAGES.								GRAND TOTAL.		TALOOKS.
Surva Enam.		Enam paying Quit rent.		Quit rent.	Zemindaries in Possession of the Proprietors.					
Cawnies or Acres.	Assessment.	Cawnies or Acres.	Assessment.		Cawnies or Acres.	Assessment.	Cawnies or Acres.	Assessment.		
Cs. as.	Rs. a. p.	Cs. as.	Rs. a. p.	Rs. a. p.	Cs. as.	Rs. a. p.	Cs. as.	Rs. a. p.		
-	-	120 9 1/2	254 4 1	721 8 -	-	-	120 9 1/2	254 4 1	1. Madacolum.	
12 8 1/2	22 12 3	98 5 1/2	195 15 3	130 14 11	1,376 8 1/2	2,658 5 9	18,570 9 1/2	47,967 8 9	2. Teroomungalum.	
-	-	-	-	-	-	-	43 2 1/2	76 14 5	3. Meyloor.	
20 2	47 9 11	-	-	-	852 13	1,005 6 4	1,130 1 1/2	1,820 15 8	4. Ramagherry.	
41 10 1/2	77 6 2	218 15	440 3 4	852 6 11	2,029 5 1/2	3,063 12 1	19,864 6 1/2	5,019 10 11		
-	-	-	-	-	-	-	334 9 1/2	450 9 2	5. Taudicumboo.	
-	-	-	-	-	5,424 8 1/2	10,580 - 8	7,221 4	13,543 5 1	6. Jyempully.	
-	-	-	-	-	217 1 1/2	319 - 1	1,220 3 1/2	1,780 12 7	7. Thencurray.	
-	-	-	-	-	958 0 1/2	1,848 6 3	1,805 10 1/2	2,904 10 3	8. Nellacotay.	
-	-	-	-	-	6,599 10 1/2	12,747 7 -	10,563 11	18,769 5 1		
41 10 1/2	77 6 2	218 15	440 3 4	852 6 11	8,029 9	16,411 3 1	36,428 1 1/2	68,889 -	TOTAL.	
-	-	-	-	-	21,679 2	35,517 12 1	21,679 2	35,517 12 1	Ramnad zemindary.	
-	-	-	-	-	1,094 10	1,432 14 -	1,094 10	1,432 14 -	Shevagungazemindary.	
41 10 1/2	77 6 2	218 15	440 3 4	852 6 11	31,402 12	53,361 13 2	53,201 13 1/2	1,05,839 10 1	GRAND TOTAL.	

(E. E.)

Madura, 25 May 1849.

(signed) R. D. Parker, Collector.

To *T. Pycroft*, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

WITH reference to the extract from the proceedings of the Board of Revenue, under date the 18th September last, and to the Minutes of Consultation thereunto prefixed, I have the honour to forward, prepared according to the form therewith received, a statement showing the extent of land, ain, and rent free, which was cultivated with cotton in this district in Fusly 1257. No cotton being cultivated on enams paying quit rent, or on the pottom and poroopoo lands held on favourable terms in this district, those columns are left blank. Cotton is extensively cultivated in the zemindaries and other permanently assessed lands; but the accounts hitherto received are, as stated in my letter of 24th December 1847, not accurate; arrangements have, however, been made for procuring correct ones from the current Fusly.

TINNEVELLY.

Tinnevelly,
19 January 1849.

(signed) *F. B. Elton*,
Acting Collector.

STATEMENT showing the Total Extent of Land applied to the Cultivation of COTTON,
in Fusly 1257, in the District of Tinnevelly.

Circar Land.		Surva Enams.	Enams paying Quit rent.		TOTAL.		
Cawnies.	Assessment.	Cawnies.	Cawnies.	Quit-Rent.	Cawnies.	Assessment and Quit rent.	
	<i>C.Rs. a. p.</i>			<i>C.Rs. a. p.</i>		<i>C.Rs. a. p.</i>	
66,516	73,333 7 2	1,722 $\frac{31}{2}$	-	-	68,238 $\frac{31}{2}$	73,333 7 2	

Tinnevelly,
19 January 1849.

(signed) *F. B. Elton*,
Acting Collector.

To *T. Pycroft*, Esq., Secretary to the Board of Revenue.

Sir,

1. I HAVE the honour to forward a statement exhibiting the extent of land appropriated for cotton cultivation in this district in Fusly 1257 (A. D. 1847-48), prepared in the form which accompanied the extract from the proceedings of the Board of Revenue, bearing date the 18th September last.

COIMBATORE.

2. I have nothing to add in elucidation of the above statement, beyond remarking that the cotton grown on enam lands is sold to the merchants in common with that, the growth of the ain land.

Coimbatore,
7 November 1848.

(signed) *J. C. Wroughton*,
Principal Collector.

STATEMENT showing the Total Extent of Land applied to the CULTIVATION of COTTON in the District of Coimbatore, in Fusly 1257 (1847-48.)

NAMES OF TALOOKS.	Circar Land.		Surva Enams.	Enams paying Quit rent.		TOTAL.	
	Cawnies.	Assessment	Cawnies.	Cawnies.	Quit rent.	Cawnies.	Assessment and Quit rent.
		<i>Rs. a. p.</i>			<i>Rs. a. p.</i>		<i>Rs. a. p.</i>
1. Coimbatore - -	7,656 0 $\frac{1}{2}$	13,521 2 8	427 10 $\frac{1}{2}$	50 8 $\frac{1}{2}$	25 4 5	8,134 3 $\frac{1}{2}$	13,546 7 1
2. Sattimungalum - -	1,353 0 $\frac{1}{2}$	1,920 6 3	64 4 $\frac{1}{2}$	67 15 $\frac{1}{2}$	23 15 2	1,485 4 $\frac{1}{2}$	1,944 5 5
3. Danaikuncottah - -	507 12 $\frac{3}{4}$	893 11 1	- - -	- - -	- - -	507 12 $\frac{3}{4}$	893 11 1
4. Collegal - - -	1,184 14 $\frac{1}{2}$	1,982 2 4	- - -	- - -	- - -	1,184 14 $\frac{1}{2}$	1,982 2 4
5. Pulachy - - -	4,411 1 $\frac{1}{2}$	8,862 3 1	389 8 $\frac{1}{2}$	16 12 $\frac{1}{2}$	1 13 5	4,817 6 $\frac{1}{2}$	8,864 - 6
6. Parindoray - - -	7,390 0 $\frac{1}{2}$	10,606 9 2	695 0 $\frac{1}{2}$	484 7 $\frac{1}{2}$	142 12 3	8,569 8 $\frac{1}{2}$	10,749 5 5
7. Andioor - - -	266 1 $\frac{1}{2}$	397 1 5	- - -	2 14	- 7 -	268 15 $\frac{1}{2}$	397 8 5
8. Errode - - -	4,905 2 $\frac{1}{2}$	6,391 15 3	1,173 14	751 9	435 10 6	6,830 9 $\frac{1}{2}$	6,827 9 9
9. Dharapooram - - -	2,866 1 $\frac{1}{2}$	3,794 8 10	271 5 $\frac{1}{2}$	51 2 $\frac{1}{2}$	10 13 3	3,188 8 $\frac{1}{2}$	3,805 6 1
10. Kongyam - - -	7,608 7	6,175 7 8	3,545 10	1,771 6 $\frac{1}{2}$	375 8 4	12,925 7 $\frac{1}{2}$	6,551 - -
11. Caroor - - -	1,183 10 $\frac{1}{2}$	1,118 9 3	98 10 $\frac{1}{2}$	36 4 $\frac{1}{2}$	10 - 2	1,318 9	1,128 9 5
12. Cheyoor - - -	3,421 5 $\frac{1}{2}$	5,207 11 3	232 1 $\frac{1}{2}$	148 13 $\frac{1}{2}$	50 5 8	3,802 4 $\frac{1}{2}$	5,258 - 11
13. Pulladum - - -	17,029 12	29,137 14	1,077 14 $\frac{1}{2}$	383 14 $\frac{1}{2}$	121 11 1	18,491 8 $\frac{1}{2}$	29,259 9 1
14. Cheekragberry - -	12,008 4 $\frac{1}{2}$	23,844 13 10	643 0	- - -	- - -	12,651 4 $\frac{1}{2}$	23,844 13 10
15. Neelgherries - -	-	-	-	-	-	-	-
TOTAL - - -	71,791 10 $\frac{3}{4}$	1,13,854 4 1	8,618 15 $\frac{1}{2}$	3,765 11	1,198 5 3	84,176 5	1,15,052 9 4

Coimbatore,
7 November 1848.(signed) J. C. Wroughton,
Principal Collector.

(Revenue Department, No. 869.)

EXTRACT from the Minutes of Consultation, under date 12 September 1849.

READ the following letter from the Secretary to the Board of Revenue, submitting, with reference to Extract Minutes Consultation, 4th September 1848, a general statement exhibiting at one view the extent of land, ain, rent free, and held on favourable terms, which is applied to the cultivation of cotton in the several cotton-growing provinces under this Presidency.

[Here enter 23d August 1849, No. 382.]

Para 1. The total extent of land under cotton cultivation in the cotton-growing districts enumerated in the tabular statement furnished by the Board of Revenue amounts to 6,92,372 acres, of which 4,89,591 acres, or 70 $\frac{3}{4}$ per cent., are lands paying revenue directly to Government, the remainder, 30 per cent., being on lands held on enam tenure, for the most part free from all demand for revenue. From the memorandum in the margin it is observed

Total extent of cotton cultivation	6,92,372 - 100	p' cent.
Circar land alone	4,89,591 - 70 $\frac{3}{4}$	
Surva enam land, entirely exempt from assessment	1,23,402 - 17 $\frac{3}{4}$	
Enams paying quit-rent	79,378 - 11 $\frac{1}{2}$	

that the lands altogether free from assessment thus occupied bear a proportion of 17 $\frac{3}{4}$ per cent. to the total extent.

2. Resolved, That the information submitted by the Board of Revenue in the letter recorded above be communicated to the Honourable Court of Directors, in continuation of Extract Minutes of Consultation, dated 4th September 1848, No. 952, reported in Revenue letter, No. 69, dated 19th September 1848.

(signed) H. C. Montgomery,
Secretary to Government.

REVENUE LETTER from the Government of Fort St. George, dated
10 September 1850, No. 46.

REFERRING to the papers transmitted with our letter in this Department, dated 5th December 1848, No. 88, we have the honour to transmit, for the information of your Honourable Court, copies of reports from the Collectors of the cotton-growing districts under this presidency on the cultivation of cotton in their respective districts for Fusly 1258, together with a copy of a communication from the Board of Revenue, with which they were accompanied, and an extract from the Minutes of Consultation dated 30th August 1850, containing our remarks upon the subject.

Diary to Cons.
3d Sept. 1850,
Nos. 15, 16.

EXTRACT Fort St. George, Revenue Diary to Cons. of 3d September 1850.

30th July.—Received the following letter:

(No. 317.)

From *W. H. Bayley*, Esq., Secretary to the Board of Revenue, to *Sir H. C. Montgomery*, No. 15.
Bart., Chief Secretary to Government.

Sir,

Para. 1. WITH reference to the orders of Government, under date the 5th December 1848, the Board of Revenue called upon the Collectors of the districts noted in the margin,* to furnish special reports of the cultivation, &c. of cotton in their respective districts at the close of each Fusly. In Cons. 18th Jan. 1849.

2. I am now directed to submit, for the information of Government, the accompanying letters specified in the margin,† which have been received from the Collectors on the above subject, in respect to the cultivation, &c. of cotton during Fusly 1258, of which the following is an abstract:

3. The extent of circar land applied to the cultivation of cotton in this district during Fusly 1258, was 49,715 acres, assessed at 72,642 rupees; of surva enam lands 8,114 acres, and of enam lands paying quitrent 27,270 acres, assessed at 12,452 rupees, making a total of 85,099 acres, assessed at Rs. 85,094. 9. 6. The extent of cultivation is stated to have been ascertained from the actual examination of the fields. Guntoor.

4. The extent of cultivation in this district during Fusly 1258 was 24,436 chains,‡ assessed at 76,386 rupees, being a slight increase on the previous year; the crop is also reported to have been more favourable. Due publicity has been given to the recommendations of Government, in para. 12 of the extract from the Minutes of Consultation of 5th December 1848, as regards the advantage the ryots would derive by attending to the careful culture, picking, and cleaning of cotton. Measures were also taken for ascertaining the additional quantity of land in the chief cotton-growing talook that might be brought under cultivation if a remission of tax were allowed, and the tahsildar reported that poonjah waste land, of 10, 20, and 30 years' standing, to the extent of 1,167 chains, are available, which the ryots offer to cultivate on a remission of half teerwah on lands bearing a superior assessment, and of one-fourth on those paying an inferior rate. The ryots of other talooks are expected to make similar proposals; but the Collector is of opinion that the remission of teerwah is not likely alone to cause any material extension of cultivation; a certain market and remunerating prices are required, and would be sufficient to direct enterprise into this channel. The experiments with foreign seed appear to have failed; in some places they did not even come up. Tinnevely.

Fusly 1257 - -	19,083	candies.
Fusly 1258 - -	21,522	"
Increase - -	2,439	

5. The extent of cultivation in this district during Fusly 1258, is as follows:—Government land, poonjah and garden, 26,731 bullahs§; nunjah, 209 cawnies, assessed at 1,22,888 rupees; and of enam land 2,446 bullahs, assessed at 7,925. The produce is estimated at 32,200 candies, of which 9,600 es. are consumed by the growers, and 22,600 es. sold in the market. Sattoor.

6. The

* Guntoor, Cuddapah, Kurnool, Bellary, Madura, Coimbatore, Tinnevely.

† From Guntoor, 11th June, in Cons. 4th July 1850; from Tinnevely, 8th, in Cons. 22d November 1849; from Coimbatore, 7th, in Cons. 17th January 1850; from Kurnool, 7th, in Cons. 28th February 1850; from Madura, 8th, in Cons. 14th March 1850; from Bellary, 6th, in Cons. 29th April 1850; from Cuddapah, 13th, in Cons. 18th April 1850.

‡ Reported in a letter to England, dated 12 August 1850, No. 43.

§ The "chain" being 1,58,404 square feet, 3'64 acres.

§ The "bullah" is 1,66,464 square feet, 3'82 acres.

II.

Madras.

Kurnool.

6. The extent of land on which cotton was grown in Kurnool during Fusly 1258 was 86,368 acres, of which 32,070 acres were enams. The crop appears to have fallen short of the quantity expected, owing to a blight; it is supposed that it reached 25,700 maunds. The experiments with foreign seed appear to have failed in a great measure, but the agent wishes to make a further trial, and asks for a fresh supply of seed.

Madura.

Fusly 1257	-	-	53,201 cawnies,	as compared with Fusly 1257.	It is stated to have been 50,846 cawnies,
Fusly 1258	-	-	50,846	assessed at 1,02,404 rupees, of which 17,482 cawnies are circar, 2,674 cawnies enam, and 30,689 cawnies zemindary lands.	The falling off is
Decrease	-	-	2,355	attributed to the unfavourable season; the supply of rain in the chief cotton divisions having proved insufficient.	No experiments were carried on in

foreign cotton during Fusly 1258 on account of Government, but the Collector alludes to Mr. Finnie, as being unsatisfactory.

Bellary.

8. The extent of land sown with cotton in this district during Fusly 1258, was 270,257 acres, assessed at 3,72,329 rupees, of which 165,094 acres were circar, and 1,05,163 acres enam lands. The ryots have been advised to pay more attention to picking and cleaning, and experiments to improve the staple by introducing foreign seed have been made, and still are in progress. A copy of a special report on this latter subject from the acting Collector to Dr. Wight, accompanies his letter. The first experiment was unfortunate, but a second has been made at Dr. Wight's recommendation, the result of which has not yet been reported.

Cuddapah.

9. The special report from this district is confined to its capabilities for the cultivation of New Orleans cotton, but in the annual settlement report the extent of land cultivated with cotton during Fusly 1258 is stated to be 87,309 acres, being an increase of 12,568 acres compared with the previous Fusly. The success of the foreign seed cotton does not appear to have been much greater in this than in other districts, as it requires more moisture than the seasons generally prevalent in Cuddapah can lead to be expected; there, however, appears to be little doubt that this cotton may be produced to any extent under irrigation; but without a ready demand for the produce, and assistance from capitalists in the shape of advances, the ryots are not likely to give it a preference over indigenous cotton.

10. The statements furnished by the several collectors are not uniform, and it has consequently been found impracticable to draw up a general statement therefrom for submission with this report, to prevent a recurrence of which a form of statement has been circulated to the Collector for adoption in future.

Revenue Board Office, Fort St. George,
25 July 1850.

(signed) B. Cunliffe,
Sub-Secretary.

To *W. H. Bayley*, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

Guntoor.

WITH reference to your letter of the 28th February last, calling for a report on cotton cultivation, I have the honour to explain that a statement of cotton cultivation in the season of Fusly 1258 was already furnished to the Board, with my letter of the 9th February 1849; and as little authentic information can now be furnished in addition thereto, I beg to suggest that any further report be dispensed with.

2. Steps have been taken to procure the required information with greater care for the current Fusly, and it will be given in comparison with the returns of Fusly 1258.

3. I beg to be informed whether the report for fusly 1259 is to be furnished through the Commissioner, or to the Board direct.

Guntoor Zillah, Collector's Office, Dindiy,
11 June 1850.

(signed) H. Stokes,
Collector.

To *T. Pycroft*, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

Tinnevely.

Para. 1. WITH reference to the orders contained in para. 13 of the extract from the Minutes of Consultation, under date the 5th December 1848, prefixed to the Board proceedings of 18th January last, I have the honour to submit a special report on the cultivation, &c., of cotton in this district for Fusly 1258.

2. The

2. The following is the abstract statement of the land employed for the culture of indigenous and foreign cotton in Fusly 1258, in comparison with the previous year, Fusly 1257, from which it will be seen that the cultivation of Coopen Parootthy cotton alone has in the Fusly under report exceeded that of the previous year by 248²⁹/₃₂ chains in Ayen villages, and by 400 chains in Cuttoogoottah and Surva Maniem villages, which is owing to there having been no excessive falls of rain, which are injurious to cotton cultivation. From the same cause the cotton crop came largely to maturity, and the exports of this article in fusly 1258 have consequently exceeded those of the previous Fusly by 2,439 candies, as shown in the margin. The price of cotton per candy varied at Tutacurin and other seaports of this district from 50 rupees to 51, but at the cotton-growing places it was 47 rupees per candy. For the most part the trade in cotton in this district is carried on for ready money, very little being contracted for in the way of giving an advance. The cotton is usually conveyed to the seaports on carts. With reference to the observation of Government contained in para. 12 of the extract from the Minutes of Consultation above alluded to, an advertisement was prepared and published throughout the district, and also read to the ryots at the jummahbundy, inculcating the advantage that they would derive by attending to the careful culture, picking, and cleaning of cotton. The tahsildar of Sattoor, where cotton cultivation is carried on the most extensively, having been called upon to ascertain and report how much additional land the ryots in his talook would be able to cultivate with cotton if a remission of tax were allowed, stated in reply that there are poonjah waste lands of ten, twenty, and thirty years standing, to the extent of 1,167 chains, available for that purpose, which the ryots offer to cultivate provided remission be allowed of half the teerwah on lands bearing a superior rate of assessment, and of one quarter of the teerwah on those paying an inferior rate. The teerwah on the above lands varies from 17 to 46 fanams per chain. The ryots of other talooks may be expected to make similar proposals. The granting of remission, however, is not likely alone to cause any material extension of cotton cultivation, the certainty of a market and remunerating prices are required, and sufficient to direct enterprise into that channel. As required in the Board's letter, dated 15th March 1841, cotton seed was distributed in several places, and instructions given according to those described in the letter; but the experiment has had no success. In some cases the seeds did not come up, while in others the plants did not thrive. Some ryots have stated that the cultivation was not paid attention to in consequence of there appearing no prospect of a profitable return.

Fusly 1257 -	-	19,083	candies.
Fusly 1258 -	-	21,522	"
Increase -		2,439	

COTTON CULTIVATION for Fusly 1258.

	Fusly 1257.			Fusly 1258.			Increase.			Decrease.		
	Extent of Cultivation.		Teerwah.	Extent of Cultivation.		Teerwah.	Extent of Cultivation.		Teerwah.	Extent of Cultivation.		Teerwah.
	Chains.	Co's.	Rs. a. p.	Chains.	Co's.	Rs. a. p.	Chains.	Co's.	Rs. a. p.	Chains.	Co's.	Rs. a. p.
Total Poonjah cultivation -	1,45,504 ¹⁰⁷ / ₁₃₈	4,00,634	14 6	1,45,036 ¹⁷ / ₃₂	3,97,292	12 -	-	-	-	468 ³⁹ / ₁₃₈	3,342	2 6
Of which—												
1st, Nadam Parootthy cotton	6,268 ¹⁵ / ₃₂	6,765	4 9	5,169 ³³ / ₆₄	5,412	9 1	-	-	-	1,098 ⁶¹ / ₆₄	1,352	11 8
2d, Coopen Parootthy cotton	17,870 ¹⁸ / ₁₆	66,487	10 6	19,233 ⁵ / ₁₆	70,865	7 9	1,362 ¹ / ₂	4,377	13 3			
3d, Foreign cotton -	48 ²³ / ₆₄	80	7 11	33 ¹⁷ / ₆₄	58	12 10	-	-	-	15 ³ / ₃₂	21	11 1
TOTAL -	24,187 ⁴¹ / ₆₄	73,333	7 2	24,436 ³ / ₃₂	76,336	13 8	1,362 ¹ / ₂	4,377	13 3	1,114 ³ / ₆₄	1,374	6 9
CENTAGE -	16 ⁵ / ₈	18 ¹⁹ / ₆₄		16 ⁵⁷ / ₆₄	19 ⁷ / ₃₂							
Net Increase -							248 ²⁹ / ₃₂	3,003	6 6			

Cotton Cultivation in Cuttoogoottah and Surva Maniem Villages.

	Chains.
Fusly 1257 -	2,239
" 1258 -	2,639
Increase -	400

Tinnevely, 8 November 1849.

(signed) C. J. Bird, Acting Collector.

II.
Madras.

To *T. Pycroft*, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

COIMBATORE.

1. ADVERTING to the extract from the proceedings of the Board of Revenue, dated the 18th January 1849, I have the honour to forward a statement exhibiting the extent of land appropriated to the cultivation of cotton in this district in Fusly 1258 (1848-49), with the amount of assessment and settlement thereon.

2. The Board will observe, from columns 33 and 34 of this statement, that the assessment of lands so applied amounts to 1,30,814 rupees.

* Also indigenous. 3. The chief products of this district are "oopum," or the annual indigenous cotton, and the "nadum purtee," a triennial crop.* The quantity produced in the year under review was estimated at 32,200 candies, of which, deducting 9,600 candies as consumed by the growers, the net quantum, 22,600 candies, appears to have been brought to the market.

4. The price paid by the home merchant for a candy of wool is about 38 rupees, who again sells it at 41 rupees, either by retail or for export.

To Bombay	-	3,000	candies.	5. From the information obtained from the Bombay native merchants
Tinnevelly	-	500	"	engaged in the trade of this article, it seems that no less than 4,052
Madras	-	225	"	candies of wool were exported to the several places indicated in the
Pondicherry	-	137	"	margin, which may be considered equivalent to 18,000 candies of seed
Malabar	-	100	"	cotton, leaving the remainder (4,600 candies) for the internal trade of
Madura	-	90	"	the district.

4,052 "

6. The crop of this Fusly is generally considered favourable.

(signed) *E. B. Thomas*,

Coimbatore,
7 January 1850.

Ag. Pl. Collector.

STATEMENT showing the Extent and Description of Lands Cultivated with Cotton in the District of Coimbatore for Fusly 1258.

GOVERNMENT LANDS.												
NAMES OF THE TALOOKS.	POONJAH.			GARDEN.			NUNJAH.			TOTAL.		
	Bullahs.	Assessment.	Settlement.	Bullahs.	Assessment.	Settlement.	Cawnies.	Assessment.	Settle- ment.	Assessment.	Settlement.	
	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
		<i>Rs. a. p.</i>	<i>Rs. a. p.</i>			<i>Rs. a. p.</i>	<i>Rs. a. p.</i>		<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>
1. Coimbatore -	2,180 15 1	10,306 13 8	10,306 13 8	112 6 1	1,384 1 0	1,380 7 8	-	-	-	11,700 15 5	11,646 5 4	
2. Sattimungalam -	456 1 1	1,874 10 10	1,849 12 3	2 6	32 2 3	25 5 -	-	-	-	1,906 13 1	1,875 1 5	
3. Danaikencottah -	123 0	541 11 1	541 11 1	11 8	154 1 4	154 1 4	-	-	-	695 12 5	695 12 5	
4. Coligul -	381 2	1,786 4 11	1,786 4 11	-	-	-	-	-	-	1,786 4 11	1,786 4 11	
5. Pullachy -	1,619 15 1	8,797 10 1	8,797 10 1	13 0	200 9 10	200 9 10	15 1 1	140 2 4	55 2 1	9,138 6 3	9,033 6 3	
6. Perindoray -	3,879 3 3	15,792 6 7	15,743 14 16	86 6 3	1,129 14 11	490 - 10	-	-	-	16,922 5 6	16,233 15 8	
7. Andioor -	92 0 2	397 1 5	397 1 5	-	-	-	-	-	-	397 1 5	397 1 5	
8. Errode -	1,551 0	6,013 8 3	6,013 8 3	7 5 1	92 - 10	48 14 6	-	-	-	6,105 9 1	6,062 6 9	
9. Dharapoorum -	577 13	2,093 12 4	2,093 12 4	8 12	131 4 -	131 4 -	33 3 3	320 10 2	51 10 8	2,548 10 6	2,276 11 -	
10. Konghiem -	3,235 3 3	7,686 14 3	7,686 14 3	-	-	-	-	-	-	7,686 14 3	7,686 14 3	
11. Caroor -	680 9 1	1,864 10 2	1,864 10 2	4 11 1	67 8 10	67 8 10	-	-	-	1,932 3 -	1,932 3 -	
12. Cheyoor -	937 0	3,824 6 8	3,768 15 3	51 15 3	615 9 5	424 2 9	91 3 1	917 - 8	229 13 7	5,357 - 9	4,492 15 7	
13. Pulladum -	6,164 2	29,188 15 5	29,188 15 5	95 2	1,706 8 11	1,152 12 -	32 0	307 - 67	- 9	31,292 8 4	30,408 12 2	
14. Checkragherry -	4,232 9	21,072 8 -	21,072 8 -	228 3 4	4,068 14 9	3,693 4 9	37 9 2	186 12 10	120 14 10	25,328 3 7	24,888 11 7	
TOTAL -	26,110 10 2	1,11,241 5 8	1,11,112 8 1	641 13 1	9,082 12 10	7,729 7 6	209 15	1,961 10 -	504 10 2	1,22,888 12 6	1,19,346 9 9	

ENAM LANDS.											
NAMES OF THE TALOOKS.	POONJAH.			GARDEN.			NUNJAH.			TOTAL.	
	Bullahs.	Assessment.	Settlement.	Bullahs.	Assessment.	Settlement.	Cawnies.	Assessment.	Settlement.	Assessment.	Settlement.
	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.
		<i>Rs. a. p.</i>	<i>Rs. a. p.</i>		<i>Rs. a. p.</i>	<i>Rs. a. p.</i>		<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>
1. Coimbatore -	85 4	381 - 3	-	5 12	81 13 -	-	-	-	-	462 13 3	-
2. Sattimungalam -	26 1 3	112 4 7	-	-	-	-	-	-	-	112 4 7	-
3. Danaikencottah -	-	-	-	-	-	-	-	-	-	-	-
4. Coligul -	-	-	-	-	-	-	-	-	-	-	-
5. Pullachy -	54 7	303 15 10	-	-	-	-	-	-	-	303 15 10	-
6. Perindoray -	107 13 3	430 14 5	19 13 6	-	-	-	-	-	-	430 14 5	19 13 6
7. Andioor -	-	-	-	-	-	-	-	-	-	-	-
8. Errode -	119 5	393 1 6	-	-	-	-	-	-	-	393 1 6	-
9. Dharapoorum -	7 12 4	30 13 5	- 10 1	-	-	-	-	-	-	30 13 5	- 10 1
10. Konghiem -	1,945 10 9	3,209 15 1	-	-	-	-	-	-	-	3,209 15 1	-
11. Caroor -	19 1 2	57 - 10	7 4 4	-	-	-	-	-	-	57 - 10	7 4 4
12. Cheyoor -	24 3 4	109 1 5	-	2 4	21 5 2	-	1 3 1	8 14 10	-	139 5 5	-
13. Pulladum -	471 10	1,825 - 3	-	1 0	17 10 1	-	-	-	-	1,842 10 4	-
14. Checkragherry -	174 12 3	942 4 10	-	-	-	-	-	-	-	942 4 10	-
TOTAL -	2,436 2 3	7,795 8 5	27 11 11	9 0	120 12 3	-	1 3 1	8 14 10	-	7,925 3 6	27 11 11

TOTAL GOVERNMENT AND ENAM LANDS.											
NAMES OF THE TALOOKS.	POONJAH.			GARDEN.			NUNJAH.			Total of Poonjah, Garden, and Nunjah.	
	Bullahs.	Assessment.	Settlement.	Bullahs.	Assessment.	Settlement.	Cawnies.	Assessment.	Settlement.	Assessment.	Settlement.
	24.	25.	26.	27.	28.	29.	30.	31.	32.	33.	34.
		<i>Rs. a. p.</i>	<i>Rs. a. p.</i>		<i>Rs. a. p.</i>	<i>Rs. a. p.</i>		<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>
1. Coimbatore -	2,266 3 3	10,687 13 11	10,306 13 8	118 2 1	1,565 14 9	1,330 7 8	-	-	-	12,253 12 8	11,646 5 4
2. Sattimungalam -	482 2 3	1,996 15 5	1,849 12 3	2 6	32 2 3	25 5 -	-	-	-	2,019 1 8	1,875 1 5
3. Danaikencottah -	123 0	541 11 1	541 11 1	11 8	154 1 4	154 1 4	-	-	-	695 12 5	695 12 5
4. Coligul -	381 2	1,786 4 11	1,786 4 11	-	-	-	-	-	-	1,786 4 11	1,786 4 11
5. Pullachy -	1,674 6 1	9,101 9 11	8,797 10 1	13 0	200 9 10	200 9 10	15 14 3	140 2 4	33 2 4	9,442 6 1	9,033 6 3
6. Perindoray -	3,987 14	16,223 5 -	15,763 12 4	86 6 3	1,129 14 11	490 - 10	-	-	-	17,353 3 11	16,233 13 2
7. Andioor -	92 0 2	397 1 5	397 1 5	-	-	-	-	-	-	397 1 5	397 1 5
8. Errode -	1,670 5	6,406 9 9	6,013 8 3	7 5 1	92 - 10	48 14 6	-	-	-	6,498 10 7	6,062 6 9
9. Dharapoorum -	585 9 3	2,124 9 9	2,094 6 5	8 12	131 4 -	131 4 -	33 3 3	323 10 2	51 10 8	2,579 7 11	2,277 5 1
10. Konghiem -	4,580 14	10,806 13 4	7,686 14 3	-	-	-	-	-	-	10,806 13 4	7,686 14 3
11. Caroor -	680 10 3	1,921 11 -	1,871 14 6	4 11 1	67 8 10	67 8 10	-	-	-	1,989 3 10	1,930 7 4
12. Cheyoor -	961 3 4	3,933 8 1	3,768 15 3	54 3 4	656 14 7	424 2 9	92 6 3	925 15 6	229 13 7	5,496 6 2	4,422 15 7
13. Pulladum -	6,635 12	31,013 15 8	29,188 15 5	96 2	1,724 3 -	1,152 12 -	32 0	397 - 67	- 9	33,135 2 8	30,408 12 2
14. Checkragherry -	4,407 6 2	22,014 12 10	21,072 8 -	228 3 4	4,068 14 9	3,693 4 9	37 9 2	186 12 10	120 14 10	26,270 8 5	24,888 11 7
TOTAL -	28,546 13 1	1,10,936 14 1	1,11,140 4 -	630 13 2	9,803 9 1	7,729 7 6	211 2 1	1,973 8 10	504 10 2	1,30,814 - -	1,19,374 5 8

Coimbatore, }
11 July 1840. }

(E. E.)

(signed) E. B. Thomas,
Ag.-Pl. Collector.

II.
Madras.

Proceedings, 18th
January 1849.

To *T. B. Roupell*, Esq., Acting Secretary to the Board of Revenue, Fort St. George.

Sir,

KURNOOL.

1. IN conformity with the order of your Board, which directs the transmission, at the close of each fusly, of a report on the cultivation, &c., of cotton, I have the honour to state that the entire extent of land on which a cotton crop was grown in this district in fusly 1258, was 86,368 acres, of which 32,070 acres were enams. The particulars of this extent of cotton cultivation are shown below in a concise form.

	<i>Acres.</i>
Circular land cultivated with cotton only - - - - -	34,834
Ditto - - ditto - with a mixed crop of cotton and other produce -	19,464
	54,298
Enams cultivated with cotton only - - - - -	20,114
Ditto - ditto - with a mixed crop of cotton and other produce -	11,956
	32,070
TOTAL - - - - -	86,368

2. From the information forwarded to me by the local amildars, the opening prospects of the season would seem to have been extremely good throughout the district generally, and expectations were entertained of an abundant crop. These, however, were subsequently disappointed by the appearance of a blight, which, though partial in its attacks, was nevertheless productive of much loss to the cotton growers.

3. The accounts before me show that the quantity of cotton exported from Kurnool, during fusly 1258, was not less than 25,700 maunds, but I am not satisfied that the data on which the total has been ascertained should be entirely trusted.

4. I am also given to understand that the price obtained for uncleaned cotton, on an average of the year, has been 6 *a.* 6 *p.* per maund, or 2 *p.* higher than that realised about two years ago.

5. The American cotton seed furnished by Dr. Wight was distributed to a few cultivators in the Paunum, Nundicootoor, and Goodoor talooks, but the yield in the two former divisions was below the average quantity produced by indigenous cotton, and an impression has in consequence there gained ground, that the foreign plant is unsuited to the soil of this district. In the Goodoor division, however, the case was different. There, although, in common with the native cotton, the plant suffered from the blight above referred to, a fair crop was picked, and no disinclination is shown on the part of the ryots, through whose agency the experiments were made, to again receive American cotton seed for their fields, or to use that collected from the produce which they raised.

6. A small quantity of Mexican cotton seed, forwarded by Dr. Wight, was also distributed to a few ryots in two villages of the Goodoor and Nundicootoor talooks, but the plants grown from it were not healthy, and the produce realised was not equal in quality or quantity to that of an average crop of indigenous cotton. It is this cotton seed which, as the Board may be aware, Dr. Wight was anxious should be tried at the commencement of the rainy season, in order to ascertaining whether an assimilation of temperature with that of Mexico would not be obtained, and an improved description of cotton be the result.

7. The rains of the season were, however, so unusually severe and lasting that I do not consider the Mexican cotton seed has had a fair test, so far as this district is concerned, and I shall be glad to be furnished with a fresh supply. Meanwhile, instructions have been issued to secure the seed of the plants which came to maturity, for the sowings of fusly 1259.

Kurnool District, Agent's Office,
On Circuit Atcoor, 7 February 1850.

(signed) *H. D. Phillips*,
Agent to the Gov^r.

STATEMENT Comparative of COTTON CULTIVATION of Fusly 1258, in the Districts of *Madura* and *Dindigul*.

No.	TALOOK.	Cultivation of Fusly 1257.		Cultivation of Current Fusly 1258. - - - - -					
		Land.	Assessment.	Descriptions of Soils of the Ayen Land Cultivation with Cotton. - - -					
				Cursel.	Suecursel.	Kukaray.	Podooghay.	Veppel.	
1.	2.	3.	4.	5.	6.	7.	8.	9.	
		<i>Cawnies. As.</i>	<i>Rs. a. p.</i>	<i>Cs. as.</i>	<i>Cs. as.</i>	<i>Cs. as.</i>	<i>Cs. as.</i>	<i>Cs. as.</i>	
1	Madacolum -	120 9 $\frac{3}{4}$	254 4 1	-	-	-	-	-	
2	Teroomungalum -	18,570 9 $\frac{1}{2}$	47,967 8 9	4,518 8 $\frac{1}{2}$	-	3,145 13 $\frac{1}{2}$	268 5 $\frac{1}{2}$	2,783 6 $\frac{1}{2}$	
3	Meylore -	43 2 $\frac{1}{2}$	76 14 5	-	-	-	-	-	
4	Ramagherry -	1,130 1 $\frac{1}{2}$	1,820 13 8	79 -	-	-	71 -	-	
		19,864 6 $\frac{3}{4}$	50,119 10 11	4,597 8 $\frac{1}{2}$	-	3,145 13 $\frac{1}{2}$	339 5 $\frac{1}{2}$	2,783 6 $\frac{1}{2}$	
5	Taudicomboo -	334 9 $\frac{1}{4}$	450 9 2	202 8 $\frac{1}{2}$	-	-	2 9	-	
6	Jyempully -	7,221 4	13,543 5 1	1,013 10	56 3	5 9 $\frac{3}{4}$	65 11 $\frac{3}{4}$	45 15 $\frac{1}{4}$	
7	Thenkurray -	1,202 3 $\frac{1}{2}$	1,780 12 7	216 1 $\frac{3}{4}$	-	2 10 $\frac{1}{4}$	-	73 6 $\frac{1}{2}$	
8	Nellacotay -	1,805 10 $\frac{1}{2}$	2,994 10 3	153 4 $\frac{1}{2}$	33 1	19 8 $\frac{1}{2}$	3 11 $\frac{1}{2}$	3 1 $\frac{1}{2}$	
		10,563 11	18,769 5 1	1,585 8 $\frac{1}{2}$	89 4	27 12 $\frac{3}{4}$	74 - $\frac{1}{4}$	122 7 $\frac{1}{2}$	
	Total -	30,428 1 $\frac{3}{4}$	68,889 -	6,183 - $\frac{3}{4}$	89 4	3,173 10	413 5 $\frac{3}{4}$	2,905 13 $\frac{3}{4}$	
	Ramnad Zemin- dary -	21,679 2	85,517 12 1	-	-	-	-	-	
	Shevagungah Ze- mindary -	1,094 10	1,432 14 -	-	-	-	-	-	
	GRAND TOTAL -	53,201 13 $\frac{3}{4}$	1,05,839 10 1	6,183 - $\frac{3}{4}$	89 4	3,173 10	413 5 $\frac{3}{4}$	2,905 13 $\frac{3}{4}$	

No.	TALOOK.	Cultivation of Current Fusly 1258—continued. - - - - -											
		Cultivation on Enam Land—continued.						Cultivation in Zemindaries under the Proprietors' Management.					
		Paying Quit Rent on Poroopoo.			TOTAL.		Cotton Produce in Potties.				Cotton Produce in Potties.		
		Cultivation.		Amount of Poroopoo.	Land.	Assessment.		Land.	Assessment.				
		Land.	Assessment.										
		20.	21.	22.	23.	24.	25.	26.	27.		28.		
		<i>Cs. as.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Cs. as.</i>	<i>Rs. a. p.</i>	<i>Cs. as.</i>	<i>Cs. as.</i>	<i>Rs. a. p.</i>	<i>Cs. as.</i>			
1	Madacolum -	98 - $\frac{1}{4}$	212 13 3	354 8 1	98 - $\frac{1}{4}$	212 13 3	75 4	-	-	-	-		
2	Teroomungalum -	254 1 $\frac{1}{2}$	622 4 1	408 3 2	2,422 12 $\frac{1}{2}$	6,262 14 7	1,380 3	1,173 8 $\frac{1}{2}$	2,266 9 -	562 3 $\frac{3}{4}$			
3	Meylore -	-	-	-	-	-	-	-	-	-			
4	Ramagherry -	-	-	-	90 4 $\frac{1}{4}$	155 1 -	-	536 15 $\frac{1}{2}$	812 3 9	130 7 $\frac{1}{4}$			
		352 1 $\frac{3}{4}$	835 1 4	762 11 3	2,611 1	6,630 12 10	1,455 7	1,710 7 $\frac{1}{2}$	3,078 12 9	692 11			
5	Taudicomboo -	-	-	-	-	-	-	-	-	-			
6	Jyempully -	-	-	-	13 1 $\frac{3}{4}$	57 11 10	3 -	6,315 9	11,495 5 7	3,764 12			
7	Thenkurray -	-	-	-	10 10 $\frac{3}{4}$	22 14 11	4 -	266 13 $\frac{1}{2}$	387 14 5	30 13 $\frac{3}{4}$			
8	Nellacotay -	-	-	-	40 2	90 - 1	17 1 $\frac{1}{2}$	1,331 11 $\frac{1}{2}$	2,293 14 11	636 10			
		-	-	-	63 14 $\frac{1}{2}$	170 10 10	24 1 $\frac{1}{2}$	7,914 2	14,177 2 11	4,432 3 $\frac{3}{4}$			
	Total -	352 1 $\frac{3}{4}$	835 1 4	762 11 3	2,674 15 $\frac{1}{2}$	6,801 7 8	1,479 8 $\frac{1}{2}$	9,624 9 $\frac{1}{2}$	17,255 15 8	5,124 14 $\frac{3}{4}$			
	Ramnad Zemin- dary -	-	-	-	-	-	-	19,992 0	35,580 2 7	10,861 1			
	Shevagungah Ze- mindary -	-	-	-	-	-	-	1,072 7 $\frac{1}{2}$	1,164 9 9	543 1 $\frac{1}{4}$			
	GRAND TOTAL -	352 1 $\frac{3}{4}$	835 1 4	762 11 3	2,674 15 $\frac{1}{2}$	6,801 7 8	1,479 8 $\frac{1}{2}$	30,689 1	54,000 12 -	16,529 1			

STATEMENT Comparative of COTTON CULTIVATION of Fusly 1258, in the Districts of *Madura* and *Dindigul*.

Cultivation of Current Fusly 1258.

Descriptions of Soils of the Ayen Land Cultivation with Cotton.

Cultivation on Enam Land.

Pottel.	Servel.	Movel.	Sirolay.	Colour.	T O T A L.		Quantity, in Potties, of Seed Cotton grown on the Land.*	TAX-FREE LAND.	
					Land.	Assessment.		Land.	Assessment.
10.	11.	12.	13.	14.	15.	16.	17.	18.	19.
<i>Cs. as.</i>	<i>Cs. as.</i>	<i>Cs. as.</i>	<i>Cs. as.</i>	<i>Cs. as.</i>	<i>Cs. as.</i>	<i>Rs. a. p.</i>	<i>No. as.</i>	<i>Cs. as.</i>	<i>Rs. a. p.</i>
1,960 7 $\frac{3}{4}$	84 1 $\frac{1}{2}$	365 14 $\frac{1}{4}$	142 2 $\frac{1}{2}$	13 6 $\frac{3}{4}$	13,282 2	34,224 13 5	7,582 1	2,168 11	5,640 10 6
- -	34 8 $\frac{3}{4}$	118 4	87 9 $\frac{3}{4}$	3 9 $\frac{1}{4}$	394 -	733 2 1	- -	90 4 $\frac{1}{4}$	155 1 -
1,960 7 $\frac{3}{4}$	118 10 $\frac{1}{4}$	484 2 $\frac{1}{4}$	229 12 $\frac{1}{4}$	17 - $\frac{1}{4}$	13,676 2	34,957 15 6	7,582 1	2,258 15 $\frac{1}{4}$	5,795 11 6
- -	5 12 $\frac{1}{2}$	6 4 $\frac{1}{4}$	40 9 $\frac{1}{4}$	68 13 $\frac{1}{4}$	326 9 $\frac{1}{4}$	435 6 3	209 5 $\frac{1}{2}$	- -	- -
- -	157 10	54 11 $\frac{3}{4}$	32 8 $\frac{1}{4}$	214 15 $\frac{1}{4}$	1,646 15 $\frac{1}{4}$	3,560 14 8	415 9	13 1 $\frac{1}{2}$	57 11 10
56 7 $\frac{1}{2}$	198 15 $\frac{3}{4}$	179 10	219 4 $\frac{3}{4}$	13 10 $\frac{1}{4}$	960 3 $\frac{1}{2}$	1,381 11 11	311 14 $\frac{1}{2}$	10 4 $\frac{3}{4}$	22 14 11
10 2	108 4 $\frac{3}{4}$	275 13	219 4	44 10 $\frac{1}{4}$	872 12 $\frac{1}{2}$	1,266 3 8	273 4 $\frac{1}{2}$	40 2	90 - 1
86 9 $\frac{1}{2}$	470 11	516 7 $\frac{1}{2}$	511 10 $\frac{1}{4}$	342 1 $\frac{1}{2}$	3,806 8 $\frac{3}{4}$	6,644 4 6	1,240 1 $\frac{1}{4}$	63 11 $\frac{1}{2}$	170 10 10
2,027 1 $\frac{1}{4}$	589 5 $\frac{1}{4}$	1,000 9 $\frac{3}{4}$	741 6 $\frac{1}{4}$	359 1 $\frac{3}{4}$	17,482 10 $\frac{1}{4}$	41,602 4 -	8,822 2 $\frac{1}{4}$	2,322 13 $\frac{3}{4}$	5,966 6 4
- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
2,027 1 $\frac{1}{4}$	589 5 $\frac{1}{4}$	1,000 9 $\frac{3}{4}$	741 6 $\frac{1}{4}$	359 1 $\frac{3}{4}$	17,482 10 $\frac{1}{4}$	41,602 4 -	8,822 2 $\frac{1}{4}$	2,322 13 $\frac{3}{4}$	5,966 6 4

Cultivation of Current Fusly 1258—continued.

Total Cultivation of the Three Items.				A Y E N L A N D.							
Land.	Assessment.	Cotton Produce, in Potties.	Waste fit for Cultivation.			Land Cultivated with other Produce fit for Cotton Cultivation.			T O T A L.		
			Cursel.	Other Sorts of Soils.	TOTAL.	Cursel.	Other Sorts of Soils.	TOTAL.	Cursel.	Other Sorts of Soils.	TOTAL.
29.	30.	31.	32.	33.	34.	35.	36.	37.	38.	39.	40.
<i>Cs. as.</i> 98 $\frac{1}{4}$	<i>Rs. a. p.</i> 212 13 3	<i>No. as.</i> 75 $\frac{1}{4}$	<i>Cs. as.</i> — —	<i>Cs. as.</i> — —	<i>Cs. as.</i> — —	<i>Cs. as.</i> — —	<i>Cs. as.</i> — —	<i>Cs. as.</i> — —	<i>Cs. as.</i> — —	<i>Cs. as.</i> — —	<i>Cs. as.</i> — —
16,878 6 $\frac{3}{4}$	42,754 5 —	9,524 7 $\frac{3}{4}$	1,997 8 $\frac{1}{2}$	2,496 4 $\frac{1}{2}$	4,493 13 $\frac{1}{2}$	1,674 10 $\frac{1}{2}$	2,527 15 $\frac{1}{2}$	4,202 9 $\frac{1}{2}$	3,672 2 $\frac{1}{2}$	5,024 4 $\frac{1}{2}$	8,696 7 $\frac{1}{2}$
— —	— —	— —	22 3 $\frac{1}{2}$	— —	22 3 $\frac{1}{2}$	198 4 $\frac{1}{2}$	— —	198 4 $\frac{1}{2}$	220 7 $\frac{1}{2}$	— —	220 7 $\frac{1}{2}$
1,021 3 $\frac{1}{2}$	1,700 6 10	130 7 $\frac{1}{4}$	— —	— —	— —	— —	— —	— —	— —	— —	— —
17,997 10 $\frac{1}{2}$	44,667 9 1	9,730 3	2,019 12	2,496 4 $\frac{1}{2}$	4,516 0 $\frac{3}{4}$	1,872 14 $\frac{1}{2}$	2,527 15 $\frac{1}{2}$	4,400 14	3,892 10 $\frac{1}{2}$	5,024 4 $\frac{1}{2}$	8,916 14 $\frac{1}{2}$
326 9 $\frac{1}{4}$	435 6 3	209 5 $\frac{1}{2}$	152 6	55 0	207 6	— —	— —	— —	152 6	55 0	207 6
7,975 10 $\frac{1}{4}$	15,114 — 1	4,183 5	91 8	63 0	154 8	247 10	14 0	261 10	339 2	77 0	416 2
1,237 11 $\frac{1}{2}$	1,792 9 3	376 12 $\frac{1}{2}$	309 7 $\frac{1}{2}$	228 8 $\frac{1}{2}$	538 0	2 8	170 9 $\frac{1}{4}$	173 1 $\frac{1}{2}$	311 15 $\frac{1}{2}$	399 1 $\frac{1}{2}$	711 1 $\frac{1}{2}$
2,244 10 $\frac{1}{4}$	3,650 2 8	926 15 $\frac{3}{4}$	409 11	1,602 2 $\frac{1}{2}$	2,011 13 $\frac{1}{2}$	— —	548 15 $\frac{1}{2}$	548 15 $\frac{1}{2}$	409 11	2,151 1 $\frac{1}{2}$	2,560 12 $\frac{1}{2}$
11,784 9 $\frac{1}{2}$	20,992 2 3	5,696 6 $\frac{1}{2}$	963 0 $\frac{1}{2}$	1,948 10 $\frac{3}{4}$	2,911 11 $\frac{1}{4}$	250 2	733 8 $\frac{1}{2}$	983 10 $\frac{1}{2}$	1,213 2 $\frac{1}{2}$	2,682 3 $\frac{1}{2}$	3,895 5 $\frac{1}{2}$
29,782 3 $\frac{1}{2}$	65,659 11 4	15,426 9 $\frac{1}{2}$	2,982 12 $\frac{1}{2}$	4,444 15 $\frac{1}{2}$	7,427 12	2,123 0 $\frac{1}{2}$	3,261 8	5,384 8 $\frac{1}{2}$	5,105 13	7,706 7 $\frac{1}{2}$	12,812 4 $\frac{1}{2}$
19,992 —	35,580 2 7	10,861 1	— —	— —	— —	— —	— —	— —	— —	— —	— —
1,072 7 $\frac{1}{2}$	1,164 9 9	543 1 $\frac{1}{2}$	— —	— —	— —	— —	— —	— —	— —	— —	— —
50,816 11 $\frac{1}{2}$	1,02,104 7 8	26,830 11 $\frac{1}{2}$	2,982 12 $\frac{1}{2}$	4,441 15 $\frac{1}{2}$	7,427 12	2,123 0 $\frac{1}{2}$	3,261 8	5,384 8 $\frac{1}{2}$	5,105 13	7,706 7 $\frac{1}{2}$	12,812 4 $\frac{1}{2}$

* One potty contains 337 $\frac{1}{2}$ lbs.

STATEMENT Comparative of Cotton Cultivation of Fusly 1258, in the Districts of *Madura*, &c.—*continued*.

No.	TALOOK.	Land fit for Cotton Cultivation								
		Enam Land.								
		Waste.			Other Land.			T O T A L.		
		Cursel.	Other Sorts of Soils.	TOTAL.	Cursel.	Other Sorts of Soils.	TOTAL.	Cursel.	Other Sorts of Soils.	TOTAL.
		41.	42.	43.	44.	45.	46.	47.	48.	49.
		<i>Cs. as.</i>	<i>Cs. as.</i>	<i>Cs. as.</i>	<i>Cs. as.</i>	<i>Cs. as.</i>	<i>Cs. as.</i>	<i>Cs. as.</i>	<i>Cs. as.</i>	<i>Cs. as.</i>
1	Madacolem -	-	-	-	-	62 12 $\frac{3}{4}$	62 12 $\frac{3}{4}$	-	62 12 $\frac{3}{4}$	62 12 $\frac{3}{4}$
2	Teroomungalum -	61 1 $\frac{3}{4}$	327 15 $\frac{1}{4}$	389 1	104 2 $\frac{3}{4}$	590 11 $\frac{1}{2}$	694 14 $\frac{1}{4}$	165 4 $\frac{1}{2}$	918 10 $\frac{3}{4}$	183 15 $\frac{1}{4}$
3	Meylore -	1 14 $\frac{1}{4}$	-	1 14 $\frac{1}{4}$	24 2 $\frac{1}{4}$	-	24 2 $\frac{1}{4}$	26 - $\frac{1}{2}$	-	26 - $\frac{1}{2}$
4	Ramagherry -	-	-	-	-	-	-	-	-	-
		63 -	327 15 $\frac{1}{4}$	390 15 $\frac{1}{4}$	128 5	653 3 $\frac{1}{4}$	781 13 $\frac{1}{4}$	191 5	981 7 $\frac{1}{2}$	1,172 12 $\frac{1}{2}$
5	Taudicomboo -	-	-	-	-	-	-	-	-	-
6	Jyempully -	-	-	-	-	-	-	-	-	-
7	Thenkurray -	4 -	-	4 -	-	36 4	36 4	4 -	36 4	40 4
8	Neillacotay -	-	41 8	41 8	49 -	14 4	63 4	49 -	55 12	104 12
		4 -	41 8	45 8	49 -	50 8	99 8	53 -	92 -	145 -
	Total -	67 -	369 7 $\frac{1}{4}$	436 7 $\frac{1}{4}$	177 5	704 - $\frac{1}{4}$	881 5 $\frac{1}{4}$	244 5	1,073 7 $\frac{1}{2}$	1,317 12 $\frac{1}{2}$
	Ramnad Zemindary -	-	-	-	-	-	-	-	-	-
	Shevagungah Zemindary -	-	-	-	-	-	-	-	-	-
	GRAND TOTAL -	67 -	369 7 $\frac{1}{4}$	436 7 $\frac{1}{4}$	177 5	704 - $\frac{1}{4}$	881 5 $\frac{1}{4}$	244 5	1,073 7 $\frac{1}{2}$	1,317 12 $\frac{1}{2}$

No.	TALOOK.	Land fit for Cotton Cultivation— <i>continued</i> .								
		Total of Three Items— <i>continued</i> .								
		Other Lands.			T O T A L.					
		Cursel.	Other Sorts of Soils.	TOTAL.	Cursel.	Other Sorts of Soils.	TOTAL.	Cursel.	Other Sorts of Soils.	TOTAL.
		62.	63.	64.	65.	66.	67.	68.	69.	70.
		<i>Cs. as.</i>	<i>Cs. as.</i>	<i>Cs. as.</i>	<i>Cs. as.</i>	<i>Cs. as.</i>	<i>Cs. as.</i>	<i>Cs. as.</i>	<i>Cs. as.</i>	<i>Cs. as.</i>
1	Madacolem -	-	62 12 $\frac{3}{4}$	62 12 $\frac{3}{4}$	-	62 12 $\frac{3}{4}$	62 12 $\frac{3}{4}$	-	62 12 $\frac{3}{4}$	62 12 $\frac{3}{4}$
2	Teroomungalum -	1,808 2 $\frac{1}{4}$	3,345 8 $\frac{3}{4}$	5,153 11	3,875 3 $\frac{1}{4}$	6,273 15	10,148 15 $\frac{1}{4}$	-	10,148 15 $\frac{1}{4}$	10,148 15 $\frac{1}{4}$
3	Meylore -	222 6 $\frac{1}{2}$	-	222 6 $\frac{1}{2}$	246 8 $\frac{1}{4}$	-	246 8 $\frac{1}{4}$	-	246 8 $\frac{1}{4}$	246 8 $\frac{1}{4}$
4	Ramagherry -	-	-	-	-	-	-	-	-	-
		2,030 8 $\frac{3}{4}$	3,408 5 $\frac{1}{2}$	5,438 14 $\frac{1}{4}$	4,121 9	6,336 11 $\frac{1}{4}$	10,459 4 $\frac{3}{4}$	-	10,459 4 $\frac{3}{4}$	10,459 4 $\frac{3}{4}$
5	Taudicomboo -	-	-	-	152 6	55 -	207 6	-	207 6	207 6
6	Jyempully -	1,157 3	437 3 $\frac{3}{4}$	1,594 6 $\frac{3}{4}$	1,415 - $\frac{3}{4}$	678 10 $\frac{1}{4}$	2,093 11	-	2,093 11	2,093 11
7	Thenkurray -	35 11	274 5 $\frac{1}{2}$	310 - $\frac{1}{4}$	615 1 $\frac{1}{2}$	696 3 $\frac{3}{4}$	1,311 5 $\frac{1}{4}$	-	1,311 5 $\frac{1}{4}$	1,311 5 $\frac{1}{4}$
8	Neillacotay -	49 -	563 3 $\frac{1}{4}$	612 3 $\frac{1}{4}$	1,501 8	2,789 1	4,290 9	-	4,290 9	4,290 9
		1,241 14	1,274 12 $\frac{1}{2}$	2,516 10 $\frac{1}{2}$	3,684 - $\frac{1}{4}$	4,218 15	7,902 15 $\frac{1}{4}$	-	7,902 15 $\frac{1}{4}$	7,902 15 $\frac{1}{4}$
	Total -	3,272 6 $\frac{3}{4}$	4,683 2	7,955 8 $\frac{3}{4}$	7,805 9 $\frac{1}{4}$	10,555 10 $\frac{3}{4}$	18,361 4	-	18,361 4	18,361 4
	Ramnad Zemindary -	5,834 -	2,139 -	7,973 -	11,502 -	3,262 -	14,764 -	-	14,764 -	14,764 -
	Shevagungah Zemindary -	372 6 $\frac{1}{2}$	342 13	715 3 $\frac{1}{2}$	693 7 $\frac{1}{4}$	656 5 $\frac{1}{4}$	1,349 12 $\frac{1}{2}$	-	1,349 12 $\frac{1}{2}$	1,349 12 $\frac{1}{2}$
	GRAND TOTAL -	9,478 13 $\frac{1}{4}$	7,164 15	16,643 12 $\frac{1}{4}$	20,001 - $\frac{1}{2}$	14,474 -	34,475 - $\frac{1}{4}$	-	34,475 - $\frac{1}{4}$	34,475 - $\frac{1}{4}$

Madura, }
11 July 1849, }

STATEMENT Comparative of Cotton Cultivation of Fusly 1258, in the Districts of *Madura*, &c.—continued.

Land fit for Cotton Cultivation.

Zemindaries under the Proprietors' Management.

TOTAL of Three Items.

Waste.			Other Lands.			TOTAL.			Waste.		
Cursel.	Other Sorts of Soils.	TOTAL.	Cursel.	Other Sorts of Soils.	TOTAL.	Cursel.	Other Sorts of Soils.	TOTAL.	Cursel.	Other Sorts of Soils.	TOTAL.
50.	51.	52.	53.	54.	55.	56.	57.	58.	59.	60.	61.
<i>Cs.</i> <i>as.</i>	<i>Cs.</i> <i>as.</i>	<i>Cs.</i> <i>as.</i>	<i>Cs.</i> <i>as.</i>	<i>Cs.</i> <i>as.</i>	<i>Cs.</i> <i>as.</i>	<i>Cs.</i> <i>as.</i>	<i>Cs.</i> <i>as.</i>	<i>Cs.</i> <i>as.</i>	<i>Cs.</i> <i>as.</i>	<i>Cs.</i> <i>as.</i>	<i>Cs.</i> <i>as.</i>
8 4 $\frac{1}{4}$	104 2 $\frac{1}{4}$	112 6 $\frac{1}{2}$	29 5 $\frac{1}{4}$	226 13 $\frac{3}{4}$	256 3	37 9 $\frac{1}{2}$	331 -	368 9 $\frac{1}{2}$	2,066 14 $\frac{1}{2}$	2,928 6 $\frac{1}{4}$	4,995 4 $\frac{3}{4}$
-	-	-	-	-	-	-	-	-	24 1 $\frac{3}{4}$	-	24 1 $\frac{3}{4}$
8 4 $\frac{1}{4}$	104 2 $\frac{1}{4}$	112 6 $\frac{1}{2}$	29 5 $\frac{1}{4}$	226 13 $\frac{3}{4}$	256 3	37 9 $\frac{1}{2}$	331 -	368 9 $\frac{1}{2}$	2,091 - $\frac{1}{4}$	2,928 6 $\frac{1}{4}$	5,019 6 $\frac{1}{2}$
166 5 $\frac{3}{4}$	178 6 $\frac{1}{2}$	344 12 $\frac{1}{2}$	909 9	423 3 $\frac{3}{4}$	1,332 12 $\frac{3}{4}$	1,075 14 $\frac{3}{4}$	601 10 $\frac{1}{4}$	1,677 9	152 6	55 -	207 6
265 15	193 5 $\frac{3}{4}$	459 4 $\frac{3}{4}$	33 3	67 8 $\frac{1}{4}$	100 11 $\frac{1}{2}$	299 2	260 14	560 -	257 13 $\frac{3}{4}$	241 6 $\frac{1}{2}$	499 4 $\frac{1}{4}$
1,042 13	582 3 $\frac{1}{2}$	1,625 - $\frac{1}{2}$	-	-	-	1,042 13	582 3 $\frac{1}{2}$	1,625 - $\frac{1}{2}$	579 6 $\frac{1}{2}$	421 14 $\frac{1}{2}$	1,001 4 $\frac{3}{4}$
1,475 1 $\frac{3}{4}$	953 15 $\frac{3}{4}$	2,429 1 $\frac{1}{2}$	942 12	490 12	1,433 8	2,417 13 $\frac{3}{4}$	1,444 11 $\frac{3}{4}$	3,862 9 $\frac{1}{2}$	1,452 8	2,225 13 $\frac{3}{4}$	3,678 5 $\frac{3}{4}$
1,483 6	1,058 2	2,541 8	972 1 $\frac{1}{4}$	717 9 $\frac{3}{4}$	1,689 11	2,455 7 $\frac{1}{4}$	1,775 11 $\frac{3}{4}$	4,231 3	4,533 2 $\frac{1}{4}$	5,872 8 $\frac{3}{4}$	10,405 11 $\frac{1}{4}$
5,668 -	1,123 -	6,791 -	5,834 -	2,139 -	7,973 -	11,502 -	3,262 -	14,764 -	5,668 -	1,123 -	6,791 -
321 - $\frac{3}{4}$	313 8 $\frac{1}{4}$	634 9	372 6 $\frac{1}{2}$	342 13	715 3 $\frac{1}{2}$	693 7 $\frac{1}{4}$	656 5 $\frac{1}{4}$	1,349 12 $\frac{1}{2}$	321 - $\frac{3}{4}$	313 8 $\frac{1}{4}$	634 9
7,472 6 $\frac{3}{4}$	2,494 10 $\frac{1}{4}$	967 1	7,178 7 $\frac{3}{4}$	3,199 6 $\frac{3}{4}$	10,377 14 $\frac{1}{2}$	14,650 14 $\frac{1}{2}$	5,694 1	20,344 15 $\frac{1}{4}$	10,522 3 $\frac{1}{4}$	7,309 1	17,831 4 $\frac{1}{4}$

Quantity on Hand
of
Cotton produced in last Year.Land that will be brought
under Cotton Cultivation in next Year.

With the Ryots.	With the Merchants.	TOTAL.	Ayen.	Enam.	Belonging to Jary Zemindaries.	TOTAL.
68.	69.	70.	71.	72.	73.	74.
<i>Ps.</i> <i>as.</i>	<i>Ps.</i> <i>as.</i>	<i>Ps.</i> <i>as.</i>	<i>Cs.</i> <i>as.</i>	<i>Cs.</i> <i>as.</i>	<i>Cs.</i> <i>as.</i>	<i>Cs.</i> <i>as.</i>
20 -	- -	20 -	3,723 9	409 4 $\frac{1}{4}$	56 14 $\frac{3}{4}$	4,189 12
-	-	-	-	-	-	-
20 -	- -	20 -	3,723 9	409 4 $\frac{1}{4}$	56 14 $\frac{3}{4}$	4,189 12
108 -	- -	108 -	81 8	- -	82 -	163 8
- -	- -	- -	147 -	- -	131 6	278 6
- -	- -	- -	234 8	- -	- -	234 8
108 -	- -	108 -	463 -	- -	213 6	676 6
128 -	- -	128 -	4,186 9	499 4 $\frac{1}{4}$	270 4 $\frac{3}{4}$	4,866 2
451 15	73 -	524 15	- - -	- - -	4,000 -	4,000 -
- -	- -	- -	- -	- -	493 7 $\frac{1}{2}$	493 7 $\frac{1}{2}$
579 15	73 -	625 15	4,186 9	409 4 $\frac{1}{4}$	4,763 12 $\frac{1}{4}$	9,359 9 $\frac{1}{2}$

(Errors Excepted.)

(signed) *R. D. Parker,*
Collector.

II.
Madras.

To *W. H. Bayley, Esq.*, Secretary to the Board of Revenue, Fort St. George.

Sir,

BELLARY.

1. I HAVE the honour, in obedience to the orders of the Board of Revenue, received in your letter of the 28th February 1850, to submit the special report of cultivation, &c. of cotton in this district for Fusly 1258. The following is an abstract of cotton cultivation during the said year :

DESCRIPTION of LAND.	CIRCAR LAND.			ENAM LAND.		TOTAL.	
	Acres.	Assessment.	Demand.	Acres.	Assessment.	Acres.	Assessment.
Dry :		<i>Rs.</i>	<i>Rs.</i>		<i>Rs.</i>		<i>Rs.</i>
Black Land - - - -	1,25,142	1,91,374	- -	88,870	1,46,291	2,14,012	3,37,665
Mixed Land - - - -	16,138	12,912	- -	10,632	9,969	26,770	22,881
Red Land - - - -	23,617	8,114	- -	5,579	2,680	29,169	10,803
	1,64,897	2,12,400	- -	15,081	1,58,949	2,69,978	3,71,349
Irrigated :							
Garden - - - -	197	601	- -	82	379	279	980
	1,65,094	2,13,001	- -	1,05,163	1,59,328	2,70,257	3,72,329

There was, it will be seen, upwards of 27,000 acres sown with cotton.

2. Though this statement was inadvertently omitted to be entered in the Jummabundy report, the subject has not been lost sight of by me. Since I took charge of the district, I have been engaged in endeavours to improve this great staple of the Bellary district. The ryots have been advised to pay more attention to the picking and cleaning the cotton; and experiments to improve the staple, by again introducing the foreign seed, have been made, and are still in progress.*

3. In a letter † to Dr. Wight (copy of which I have the honour to enclose), I made a full report of some experiments made with the Mexican seed in Fusly 1258. These experiments I thought very unsatisfactory; but Dr. Wight attributed the failure to the blight, and gave me much encouragement to prosecute them again. I have done this, and the result will be detailed in my next report for Fusly 1259. Dr. Wight forwarded a bandy lead of seed from Coimbatore, which has been distributed over the district, and the produce of which is now gathering in.

4. Dr. Wight also promised to send me two saw-gins for cleaning the country cotton; but these I have never received. It is very desirable that these machines should be introduced into Bellary with as little delay as possible; and I find I can procure them at Dharwar at a cost of 40 rupees each; and if the Board will allow me to order a few, I shall exert myself to give them a full trial.

5. The manner in which I became aware that such gins were procurable was as follows: in the printed book of cotton experiments in the Southern Mahratta country, lately sent to me from the Board of Revenue, I observed that the New Orleans crop of 1848, in the Dharwar district, was almost an entire failure, and there the report ended. Desirous to know the result of the following year, and the prospects of the present season, I wrote a note to Mr. Bell, the Collector, inquiring about the crops. In a private communication with which I have been very kindly favoured by that gentleman, he informed me that the New Orleans plant had met with a very great check in the year 1848-49, but in the present year, 1849-50, it was again recovering; and at the same time he informed me respecting the saw-gin, and though only a private communication, that gentleman will not, I am sure, object to my quoting his own words: "We are making up in the factory a very excellent description of saw-gin, which can be worked all day by two men alternately, and cleans about 1½ maunds (28 lbs. 1 maund) of seed cotton the hour, and costs only 40 rupees. If you have nothing of the kind to clean cotton in Bellary, you should introduce it. The department here

* Extract from a letter of the Collector of Bellary to the Secretary to the Board of Revenue, dated 6 April 1850.

† Dated 31 May 1849.

here will supply any number you require before the next season. This instrument does nearly three times the work which the Manchester cottage gin, of which you have read is capable of performing."

6. I am not at all sanguine of general success in the Mexican plant (the result of the present year will determine my measures for the future), but I entertain great hopes that the introduction of the saw-gin will be attended with as good results as at Dharwar or elsewhere, and I cannot do better in concluding this report than to request that the sanction of Government may be obtained for procuring, as soon as they can be got ready, 25 gins from Dharwar.

(signed) C. Pelly,
Acting Collector.

Bellary District, Collector's Office, on Circuit Ramandroog,
6 April 1850.

(No. 1.)

To Dr. Wight, Superintendent of Cotton Farms, Coimbatore.

Sir,

Para. 1. IN accordance with your request, I have the honour to report the result of the experiment made with the Mexican cotton seed in the respective talooks of this district, where it has been sown. I beg to direct your attention to the enclosed statement.

2. It has been sown in both regud, masub, and laul soils, and in one case only has irrigation been resorted to.*

3. In the Hurponhully Talook experiments were made in masub land only; almost all the plants were destroyed by blight, and the crop obtained from the few surviving ones, was almost nominal. The seed in this case was not sown until September.

4. In Koodleghee Talook experiments were made in both black and masub soils; in the former, the plants at first presented a very healthy appearance, but before arriving at maturity were attacked by a blight, which injured the leaves† to a considerable extent, but subsequently disappeared. This, however, no doubt prevented the produce being as extensive as it would otherwise have been: it gave an out-turn of $6\frac{1}{2}$ seers of uncleaned cotton per each seer of seed sown. In the masub it was a total failure; very few plants ever appeared above ground; those which did, were irrigated, but without success: in this case alone has irrigation been resorted to. The plants did not at any stage present healthy appearance, nor was there any produce.

† Akula Jigi.

5. In Hoovinhadagaly the seed was sown in fine masub soil in two villages in the month of July; it was free from blight, most productive, averaging 27 seers of cotton for each seer of seed, and the cotton of a superior description. The seed obtained from the cotton has been carefully preserved, and will be sown again at the same time this year, together with some fresh seed. The gathering took place from November to March, and the result has been most satisfactory; but it must be borne in mind, that the rains were very seasonable, and the land selected for the experiment some of the best to be found for the purpose, and that there was no blight. It is also to be noted, that rains fall to the westward under the western monsoon much more regularly and earlier than in the other divisions of this district. July is the regular sowing season there; not so in the other talooks noticed in the statement. Hoovinhadagaly is the most western talook. Hurponhully is equally favoured in this respect, but the crop there was lost by blight, whether from being sown too late or not, I cannot say.

6. Adonie. Experiments were made in this talook in the black land only, and were almost a total failure; the plants were much injured by blight, called jogee rogum, and the produce very small, averaging only $2\frac{1}{4}$ seers of cotton to a seer of seed; the seed was not, however, sown until October, the usual time of sowing in this northern talook.

7. Goollem. In this case also the seed was sown in black land, by special order, as soon as I received it from you; the plants were fine and promising until they attained the height of about two feet, when, at least, half of them were destroyed by blight, but of a nature different from that alluded to in the case of Adonie, called masee rogum; in this case the plants became quite black, crumbling in the hand like charcoal; whereas in the Adonie talook the leaves alone were affected, and, if rolled in the hand, were found to be covered with a glutinous substance. The produce was only 5 seers of cotton per seer of seed.

8. Punchapollem.

* 1. Note.—The regud is the black loam on the common cotton soil of Bellary, Dharwar, &c.
2. Masub is, as the term denotes, a mixture of red and black; it is fine land, and the western talook as rich as the black soils. 3. Laul is the red, and generally the least productive soil, unless irrigated.

II.
Madras.

8. PUNCHAPOLLEM. Experiments were made in the black land; some of the plants perished from blight. The produce, notwithstanding, would have been satisfactory, had it not been for an unusual quantity of rain which fell in this village, and much injured the growing plant. The return was eight seers of cotton per each seer of seed.

9. GOOTY. The seed in this case also was sown in the black land in October; and though the growing plants suffered partially from blight, the result was very satisfactory, though by no means as much so as, in the case of Hoovinhadagaly talook. It yielded on an average 13 seers of cotton per each seer of seed. The Amildar has applied for a further supply of 10 maunds of seed, but the ryots do not seem much disposed to repeat the experiment.

10. TADPUTRY. The experiments were made in two villages belonging to this talook, which is the most eastern in the Cuddapah frontier, and contains fine cotton soil, and the finest race of cultivators. In the first village, Tadputry, from the time the plants were about a foot high, they were more or less affected with a blight, called here wodapah rogum, which, though at first it only affected the leaves, eventually destroyed both the flowers and growing pods; there was not therefore any produce. In the second village, Poottoor, the same blight prevailed, though not to the same extent, and eventually partially left them; the produce was, however, but small, averaging $4\frac{1}{2}$ seers of cotton for each of seed.

From the above, it will appear that the experiments have been attended with success in three villages only, Hoovinhadagaly, Soghee in the Hoovinhadagalay talook, and in Conacondlah in the Gooty talook; in the former talook the seed was sown early in July, thereby obtaining an advantage from the western rains, which were remarkably fine in the western talooks this year.

11. From the unsatisfactory out-turn in the other talooks, where the seed was sown in the usual seasons, and in the best selected spots, I am afraid the experiment will, if repeated, not succeed. I purpose therefore more particularly to try it again in Hoovinhadagaly, and orders to this effect have been given; but should you supply me with any large quantity of seed, I shall again try the experiment in the great cotton talooks. It is proper to mention that the cotton crop generally this year was bad.

12. Some seed was sent to the subdivision, which is principally red soil; and I beg to enclose copy of a report from Mr. Mayne, who, you will see, speaks highly of the success of the experiment tried in the Anuntapoor talook; but I entirely concur in his observation in the last para. of his letter, that it is desirable to have artificial irrigation to ensure the complete success of the growth of cotton in the red soils of those talooks.

13. I shall be happy to receive any suggestions you may be pleased to favour me with for future experiments; but I am not sanguine that the experiments will prove successful in this district generally, which, perhaps, is the driest district in the whole of India; and I fear that from that cause, unless irrigated, it would be vain to try the sowing in April and May, as suggested in your letter of 30th September. But, with the present facts now before you, your intimate acquaintance with all the details of cotton may enable you to suggest what would be the best mode to proceed in future.

14. But I am desirous that we should not confine our attention to the rearing of new and foreign seed, but improve the cotton indigenous to the district by a better mode of cleaning and preparing it for the market. I should be obliged if you have any improved gins, and are authorised, as I believe you are, to furnish them, by your sending me one or two for trial, and favour me with such further advice as you think may be conducive to the great object of Government, viz., the production of an article of a quality suitable to the English market.

Bellary District, Collector's Office, on Circuit Toranagub,
31 May 1849,

(signed)

C. Pelly,
Acting Collector.

No. 1.—STATEMENT showing the Produce of the *Mexican* Cotton Seed Sown in the following Talooks.

NAMES of the TALOOKS.	NAMES of the VILLAGES.	Cotton Seed Sown in Circular Land.				Date of Sowing.	Quan- tity of Seed.	Irrigated or Not.		Attacked with Disease or Not.		Time of Gathering.		Num- ber of gath- ering.	Total Pro- duce of Un- cleaned gather- ing.	Average Pro- duce of each gather- ing.	Average of Pro- duce in Col. 16 to each Seer of Seed Sown, Col. 8.	REMARKS.
		Description of Soil.	Number of the Field.	Acres.	Assessment of Co.'s Pagodas.			Irrig- ated.	Not Irrig- ated.	Dis- eased.	Not At- tacked.	From	To					
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.
1. Harponhully	-	Musub -	114	4. 9.	P. f. as.	Sept. 1848	4.	-	1	1	-	Dec. 1849	28 Feb. 1849	3	11	1	-	These Talooks are to the west of the Bellary District.
-	-	Musub -	151	0 2 8	0 0 1	" "	5	-	1	1	-	" "	" "	1	2	-	-	
TOTAL	-	-	-	0 6 8	0 0 4	-	9	-	-	-	-	-	-	-	-	-	-	
2. Koodalaghee	-	Regud -	11	0 7 8	0 1 4	30 Sept. 1848	5	-	1	1	-	Feb. 1849	12 March 1849	5	84	6	6	
-	-	Musub -	406	0 3 0	0 0 5	15 Oct. "	3	1	-	1	-	-	-	-	-	-	-	These the Nor- thern Centre, and Eastern Talooks.
TOTAL	-	-	-	0 10 8	0 1 9	-	8	-	-	-	-	-	-	-	34	-	-	
3. Hoovinhadagaly	-	Musub -	279	0 6 0	0 1 7	20 July 1848	4	-	1	-	-	28 Nov. 1848	28 Feb. 1849	6	108	18	27	
-	-	Musub -	44	0 4 4	0 0 12	14 " "	4	-	1	1	-	1 " "	31 March "	-	108	18	27	
TOTAL	-	-	-	0 10 4	0 2 3	-	8	-	-	-	-	-	-	-	216	-	-	This is the experi- ment tried by Mr. Mayne and reported on in his letter of the 26th February 1849.
4. Adonie	-	Regud -	140	0 7 14	0 0 8	10 Oct. 1848	5	-	1	1	-	8 March 1849	7 April 1849	3	13	4	2	
-	-	Regud -	34	0 3 12	0 0 6	" "	3	-	1	1	-	" "	" "	3	7	2	1	
TOTAL	-	-	-	0 11 10	0 0 14	-	8	-	-	-	-	-	-	-	20	-	-	
5. Goollem	-	Regud -	406	0 15 0	0 2 4	2 Aug. 1848	9	-	1	1	-	Jan. 1849	March 1849	4	45	11	5	These the Nor- thern Centre, and Eastern Talooks.
-	-	Regud -	227	0 12 6	0 2 4	7 Oct. "	6	-	1	1	-	Feb. "	April "	4	48	12	8	
-	-	Regud -	172	0 12 5	0 3 1	" "	5	-	1	1	-	4 March "	31 March "	3	72	24	13	
-	-	Regud -	18	0 1 8	0 0 5	" "	3	-	1	1	-	-	-	-	-	-	-	
8. Tadputry	-	Regud -	111	0 4 8	0 1 4	" "	6	-	1	1	-	Jan. 1849	March 1849	2	28	14	4	This is the experi- ment tried by Mr. Mayne and reported on in his letter of the 26th February 1849.
TOTAL	-	-	-	0 6 0	0 1 9	-	9	-	-	-	-	-	-	-	28	-	-	
9. Anuntapoor	-	Regud -	71	0 11 0	0 0 7	11 Aug. 1848	6	-	1	1	-	1 March 1849	7 April 1849	3	36	12	5	
-	-	Rud Soil	72	0 19 2	0 0 7	" "	6	-	1	-	1	" "	" "	3	120	40	17	
TOTAL	-	-	-	0 30 2	0 0 14	-	13	-	-	-	-	-	-	-	156	-	-	These the Nor- thern Centre, and Eastern Talooks.
GRAND TOTAL	-	-	-	2 34 11	1 4 14	-	70	-	-	-	-	-	-	-	621	-	-	

Bellary District, Collector's Office, on Circuit }
Tornagub, 31 May 1849.

(E. E.)

(signed)

C. Pelly,
Acting Collector.

To *C. Pelly*, Esq., Acting Collector of Bellary.

Sir,

IN reference to the printed circular, dated 6th March 1848, received from "Robt. Wight, Surgeon Superintendent Cotton Farms," I have the honour to state, that, on assuming this office in June 1848, the ground was in so parched a condition that ploughing was impracticable, and seed, if sown, would, without irrigation, in all probability have been destroyed, and an opportunity was not available until late in August, when the amount of seed at hand was put in the ground, and germinating, gave very different results:

2. That sown in red soil produced very fine plants, and an abundant crop, to the extent of a half more than is attainable from the native country plant, afforded entire satisfaction, and drew forth the unbounded applause of the ryots in whose land it had been raised, as well as others who witnessed it.

3. The remaining seed was, contrary to positive orders, sown in black soil, germinated tediously, and produced weakly plants, with deficient flowers and inferior pods, that became a prey to an insect of the weevil species, that bores through the outside cover, and destroys the embryo cotton in the pod.

4. This insect was also very, but in a less degree, destructive to the first-mentioned produce, in the same way as it prevails through the common country cotton crops, but probably will not be present in case of the seed being sown after the early rains of May.

5. It is evident that, if conducted agreeably to the directions contained in the said circular, the Mexican cotton would be found a very remunerative crop throughout the seed soil lands of this district, and highly satisfactory to the ryots, who declared themselves astonished at the produce, and most desirous of propagating the new plant.

6. Strict directions were given for preservation of all the seed that was produced for sowing immediately after the early rains shall have rendered the ground arable, and I would suggest the propriety of procuring a large supply of seed from Coimbatore, and encouraging more general cultivation of the plant by particular orders to the heads of villages, strictly enforcing the necessity of attention to the description of soil and season of the year adapted, by which only can complete success and confidence of the ryots in the novel practice be insured.

7. The nature of the climate is so arid, that it certainly would be desirable always to have artificial irrigation by wells available, that, in case of protracted drought obtaining, as was the case in the past year, water might occasionally be applied, and thereby render the crop certain, instead of a hazardous speculation, as it otherwise would too often be found, impelling the people to their time-revered practice of waiting for later rains.

Bellary District, Sub-Collector's Office,
on Circuit at Murrumakoolapully,
26 February 1849.

(signed) *D. Mayne*,
Acting Sub-Collector.

To *W. H. Bayley*, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

Para. 1. I HAVE the honour to submit my special report on the capabilities of this district as regards the cultivation of New Orleans cotton.

2. The New Orleans or Mexican seed has been, for the last two years, experimentally sown in patches, in the rich black soils of the cotton-producing talooks, after the setting in of both the S. W. and N. E. monsoons, in order to a fair trial being obtained in reference to the general peculiarities of climates and seasons. The same seed has also been sown in the lighter descriptions of garden soils which are moderately assessed, and in lands under new wells bearing a dry assessment.

3. Samples of the produce have been sent by the fahsildars for inspection, and they have been required to report from time to time on the state of the growing crops, and on the harvest result of the same, and I have availed myself of the opportunity I have had of personally inspecting the plants in various localities.

4. The result of the experiments shows that the plants sown in the early monsoon in June and July have thrived the best, as regards such as are entirely dependent on the season and periodical rains for means of moisture. Crops sown at this season are gathered in September and October, and though deprived of the bright sunny weather experienced in March and April, when crops sown on the latter or north-east monsoon come to maturity, still the disadvantage appears to be counteracted by the benefit derived from additional moisture obtained during the former season following the setting in of the south-west monsoon.

5. In respect to crops so raised on dry land, I fear the experiments do not give promise of a satisfactory result, as I at one time anticipated, and it was not until I visited the cotton-producing talooks on Jumabundy for the current Fusly that my opinion has undergone this change. The plants sown in the preceding Fusly having, on the whole, thrived tolerably well, led to a hopeful conclusion; but the want of sufficient moisture, which has impeded the growth of the plants for the current Fusly, has clearly demonstrated that the uncertainty attendant on a shower of rain being experienced when required, must at all times render the result of the harvest of these crops precarious.

6. It may safely be stated that high temperature is not injurious to the plant, which has produced abundantly during the hottest weather, when cultivated under irrigation. It, however, requires more moisture than the seasons generally prevalent in this district can lead us to expect will be experienced. It has been noticed (in respect to dry cultivation) that in such favoured localities, where a good shower of rain has fallen at the time needed, satisfactory results have ensued, the plants having been enabled to strike their roots deep into the soil, which, from its clayey nature, retains moisture for some time, sufficient to render the plant independent of further rain, while other plants sown at the same time and in soil equally rich, but which did not derive the same benefit of a fall of rain, yielded indifferently, and partially failed. In this district periodical rains do not follow the setting in of either monsoons to the extent required to insure success in the culture of the American plant; partial showers may be received in the months of July and August, during the one season, and in November and December during the other, and such would, perhaps, secure an average crop; but this is a contingency regarding which the cultivators would not like to run any risk; though, in respect to the indigenous cotton, they are indifferent on this score, as these crops are not generally sown unless the fall of rain during the N. E. monsoon has been sufficient, and once sown, they afford a tolerable yield, should no rain even have fallen up to the period they arrive at maturity, a circumstance which must be accounted for by the plant being more hardy, and from its striking its root more quickly into the soil.

7. The want of moisture periodically appears, therefore, to be the sole drawback to the successful production of Mexican cotton on dry lands, dependent entirely on the seasons, a disadvantage, however, in this district, which the experiments that have been made show can be overcome by means of irrigation. There can be no question that this description of cotton may be produced to any extent under irrigation, and in comparatively very inferior soils. The plants that have been experimentally sown in lightly assessed garden lands, and in new well lands (on the latter of which the dry assessment is only leviable) have in all instances yielded abundantly. They were sown during the month of July, and received only seven or eight waterings at different intervals.

8. As the consumption of water sufficient to ensure a satisfactory crop is thus comparatively moderate, and, as consequently there is little labour and trouble attendant on raising these crops, compared with other descriptions of produce under irrigation, the most sanguine hopes may be entertained in respect to the culture of American cotton in the descriptions of land above mentioned, provided there was a ready demand for exportation, a demand which, as regards this superior quality of cotton, has not been locally experienced in the principal markets for all kinds of agricultural produce. The additional cost of raising the produce in reference to labour and expense, and to the rent leviable on the land, is fully compensated by the increased produce that is raised.

9. It is to be observed that the American cotton is not so well suited to the wants of native manufacturers as the indigenous kind, while one of the objections (under the uncertainty of remunerative prices being occasioned by the demand) which the cultivators seem to have to the culture of the Mexican plant is, that the seed does not possess the same oily substance, and consequent nourishing property as an article of food for cattle, a matter, it must be admitted, of some consideration.

10. Prejudices to be overcome, apathy or unwillingness to engage in agricultural pursuits out of the usual routine, cannot, I think, be justly imputed to the ryots of this district. They seem willing enough to apply themselves to the production of an article of agriculture, from which they are led to suppose such valuable results conducive to their interests will be obtained, but it is very necessary that they should be practically convinced that such will be the case, and this must be effected by the demand inducing parties to make advances, and to agree with them for the produce at remunerative prices; for otherwise it can hardly be reasonable to suppose that they would be particularly anxious to apply their lands to the cultivation of an article required by the English manufacturers, when they might turn their labour and industry to better account.

11. The advances that might be so made to the cultivators, and the purchases so effected by them at prices regulated by the demand in the open market, would greatly tend to effect a saving in the cost of production consequent on the non-employment of middlemen, while it would place ryots who may be in want of funds for the means of carrying on or extending their cultivation above the necessity of borrowing, and of giving security for such loans on the growing crops, which at maturity they would most probably be obliged to dispose of below the market price.

12. Premising that any quantity of Mexican cotton might be produced if English capitalists

talists employed their agents to make purchases at prices remunerative to the producers, the question is, whether such prices would be profitable to the consumers; whether, in fact, the article could be sold in competition with the produce of America.

13. The accompanying detailed statement has been prepared on the best information I have been able to collect from every inquiry made, from the perusal of which some opinion may be deduced on so important a point.

14. The result as to the profit derivable by the cultivator is satisfactorily obtained by comparing the constituent elements, in the way of costs, that would make up the sum total of a candy, or 500 lbs. of indigenous seeded cotton grown entirely on lands dependent on the seasons, and of a candy of American seeded cotton raised under irrigation, with the prices of the two descriptions of produce. It is calculated that it requires eight acres of dry land to produce four candies, or 2,000 lbs., of seed cotton of the indigenous kind, from which one candy of seeded cotton wool is obtained, the cost of production, including average assessment on this quantity of land (computed at 2 rupees per acre), being, it will be perceived, *Rs.* 36. 9. 4. The price of four candies of this seed cotton is estimated at *Rs.* 58. 4., leaving a net profit to the cultivator of *Rs.* 21. 10. 8. for every eight acres of land cultivated. It will be observed that the price per candy of seeded wool is entered at 47 rupees, *Rs.* 11. 4. being allowed as the sum procurable for the seed.

15. The net profit derivable in raising the same quantity, or a candy of American seeded cotton under irrigation, is estimated at *Rs.* 26. 12. 6., the produce per acre being not only considerably larger, but the proportion of wool to seed also greater, being in the proportion of about 33 per cent., while it is about 25 per cent. as regards indigenous cotton. The price of the seeded Mexican cotton moreover is high, being calculated at 63 rupees per candy, or about 34 per cent., or $\frac{3}{4}$ d. in the pound, over that accruing from the sale of the native cotton, though I believe the price in the British market in favour of Mexican cotton has been as high as 1 d. and 1 $\frac{1}{2}$ d. the lb., according to which the profit derivable would be proportionately greater.

16. It requires three acres of land (of the description specified), under irrigation, to produce this quantity of seeded American cotton, the average assessment on which being 18 rupees (or six rupees per acre), is very little higher than the assessment on the eight acres of dry land on which this quantity of the indigenous kind can be raised, which trifling excess, combined with the increase in the charges incurrible, is more than counterbalanced by the price the superior article commands at the lowest calculation.

17. It will be observed that, on the same computation, the profits derivable in raising this quantity of seeded American cotton on lands under new wells, is considerably greater, owing to the light assessment on the dry lands; but this profit of *Rs.* 41. 2. 6. is reduced to 32 rupees on allowing the ryots 12 per cent. per annum on the cost and outlay expended in the construction of the new well, estimated on the average at 100 rupees.

18. The assessment, taken on the average above specified of two rupees per acre as regards dry lands, and at the rate of six rupees per acre for lands under irrigation, cannot be considered high compared with the price of the article,* when it is considered that the cost of production including such rent is equal to 62 and 53 per cent. respectively of the value of the produce raised on garden and new well lands. The yield of both descriptions of land under irrigation is reckoned on a par, according to which, as computed,† the cultivator derives 38 and 47 per cent. of the produce of his garden and new well lands to reimburse his expenses.

19. On reference to the commercial quotations of the money market in England, it would appear that the New Orleans or Mexican cotton has been selling as high as 6 $\frac{1}{2}$ d. the lb., and Madras indigenous at 4 d. and 4 $\frac{1}{2}$ d. Assuming 5 $\frac{1}{2}$ d. to be the average as regards the Mexican kind,

* Cost of Production.	Price of Produce.	Centage.
Indigenous.		
<i>Rs. a. p.</i>	<i>Rs. a.</i>	<i>Rs.</i>
36 9 4 -	- 58 4 -	- - 63
American.		
43 11 6 -	- 70 8 -	- - 62
37 5 6 -	- 70 8 -	- - 53

† Profit.	Price of Produce.	Centage.
<i>Rs. a. p.</i>	<i>Rs. a.</i>	<i>Rs.</i>
21 10 8 -	- 58 4 -	- - 37
26 12 6 -	- 70 8 -	- - 38
33 2 6 -	- 70 8 -	- - 47

kind, and the average of freight 3 *l.* per ton of 20 cwt., or 2,240 lbs., the result, as marginally noted, would exhibit a profit of *Rs.* 41. 9. 1., or 3 *l.* 19 *s.* 8 *d.*, derivable on the sale per candy of 500 lbs. in the English market, the price at which this quantity can be sold for being calculated at 119 rupees, or 11 *l.* 9 *s.* 2 *d.*, while the comparative low price at which the same quantity can be brought to the English market, allowing a remunerative profit to the producer, and including charges for cost of transit to the port of shipment and for freight, is 78 rupees, or 7 *l.* 9 *s.* 6 *d.*

Particulars of Price at the Place of Cultivation, as well as Cost of Transit Freight, &c., for Exportation.				Market Price at which a Candy of 550 Lbs. of Mexican Cotton is sold in England, calculated at an Average Rate of 5½ <i>d.</i> per <i>Lb.</i>	Comparison between Columns 4 and 5.		Centage between Columns 1 and 6.	Centage between Columns 5 and 4.
Price per Candy of American Cotton in the District.	Cost of Transit to Madras per Candy.	Cost of Freight per Candy, calculated at 32 Rupees per Ton of 20 Cwt., or 2,240 Lbs.	Total of Columns 1, 2, and 3.		Increase, or Net Profit at Home.	Decrease.		
1.	2.	3.	4.	5.	6.	7.	8.	9.
<i>Rs.</i> <i>a.</i> <i>p.</i>	<i>Rs.</i> <i>a.</i> <i>p.</i>	<i>Rs.</i> <i>a.</i> <i>p.</i>	<i>Rs.</i> <i>a.</i> <i>p.</i>	<i>Rs.</i> <i>a.</i> <i>p.</i>	<i>Rs.</i> <i>a.</i> <i>p.</i>	<i>Rs.</i> <i>a.</i> <i>p.</i>	<i>Rs.</i> <i>a.</i> <i>p.</i>	<i>Rs.</i> <i>a.</i> <i>p.</i>
63 - -	8 - -	7 - -	78 - - or £. 7 9 6	119 9 1	41 9 1	- - -	66 - -	66 - -

20. The above, on the whole, appears to me satisfactory, and I am therefore induced to think that, so far as this district is concerned, the obstacles which are supposed to have retarded the cultivation of this staple of superior quality may be overcome, provided the difficulty under which the progress to improvement at present labours, owing to the want of a ready demand in the district, was removed.

21. In respect to the improvement of the quality so much needed of the indigenous cotton, I fear the deficiencies in cleaning and gathering will not be remedied unless the agents of capitalists place themselves also in direct communication with the cultivators of the soil, make advances, and exercise the necessary supervision. The introduction of the saw-gin suitable for this variety will do much towards transmitting the article in a cleaner state to the port of shipment, as also towards cheapening the production of cleaned cotton, by superseding the tedious method now in use.

22. With the system of agriculture no fault can reasonably be found; and there is every reason to think that the indigenous cotton, though hitherto grown rather for the consumption of this country than for a foreign market, would not altogether be unsuited to the wants of the English manufacturers, if those who were most interested in its improvement and in extending its cultivation took the remedy into their own hands towards the attainment of a greater degree of cleanness in the article, made purchases direct from the ryots, and rejected such as they considered bad, thus supplanting middlemen, whose object it is to mix up as much trash and leaves, &c. so long as they can find purchasers for an article so deteriorated.

23. In my annual report of the Revenue Settlement for Fusly 1258, para. 54, the increase in the cultivation of cotton of the indigenous kind is shown to have been Acres 12,568. 1. 12., the land assessment on which was *Rs.* 20,479. 12. 4. No further remarks appear in this place necessary, further than to state that a still further extension of the culture of the article in the black soils may be anticipated, from the circumstance of 2,663½ acres having up to this period been taken up on cowle, agreeably to the rules in force, and that I have availed myself of the opportunity I have had of impressing upon the ryots the importance attached to careful picking and cleanliness of the article, and of keeping unmixed the superior from the inferior kinds of produce. I beg here to rectify a clerical error in respect to the average assessment on the lands cultivated with cotton during the past Fusly, which should have been entered as *Rs.* 1. 10., and not *Rs.* 3. 3., as specified in para. 54 of my report dated 31st December last.

(signed) J. H. Cochrane,
Collector.

Cuddapah District,
Collector's Office, on Circuit at Muddenpully,
13 April 1850.

No. 1.—STATEMENT showing the EXTENT of LAND required to yield One Candy of AMERICAN COTTON, and the Charges for Cultivation, &c.

Extent of Land required to yield one Candy of Cotton, and the Charges for Cultivation, &c.															
C E N T A G E.															
		Quantity of American Cotton raised in 3 Acres of Land irrigated by different Sources.				Between Columns 3 and 4.			Between Columns 3 and 5.			Between Columns 3 and 6.			
	1.	2.	Quantity of indigenous Cotton raised on 8 Acres of Black Land, solely dependent on the Season.	3.	Quantity of Cotton raised in lightly assessed Garden Land.	4.	Quantity of Cotton produced in Land under new Wells liable to dry Assessment only.	5.	Average dry Assessment of Land under new Wells, together with Interest, at 12 per Cent., calculated on the Outlay.	Increase.		Decrease.		Centage.	
										7.	8.	9.	10.		11.
Quantity produced -															
	1. Quantity of cotton produced, at 1 candy of 500 lbs. -		4 - -		3 - -		3 - -		3 - -		1 - -	25 - -		1 - -	25 - -
	2. Quantity of seeds -		3 - -		2 - -		2 - -		2 - -		1 - -	33 - -		1 - -	33 - -
	3. Remaining quantity of seeded cotton -		1 - -		1 - -		1 - -		1 - -		- - -	- - -		- - -	- - -
Value of Cotton, &c.			47 - -		63 - -		63 - -		63 - -		16 - -	34 - -	16 - -	34 - -	34 - -
	5. Value of seeds at 3 rs. 12 a. per candy -		11 4 -		7 8 -		7 8 -		7 8 -		- - -	3 12 -	- - -	3 12 -	33 - -
	6. Total items 4 and 5 -		58 4 -		70 8 -		70 8 -		70 8 -		12 4 -	21 - -	12 - -	21 - -	21 - -
Cultivating Charges, &c.			20 9 4		25 11 6		25 11 6		25 11 6		5 2 2	25 - -	5 2 2	25 - -	25 - -
	7. Cultivating charges -														
	8. Amount of assessment payable to Government -		16 - -		18 - -		2 10 -		11 10 -		2 - -	12 - -	- - -	4 6 -	27 - -
	9. Total of items 7 and 8 -		36 9 4		43 11 6		28 5 6		37 5 6		7 2 2	19 - -	- - -	8 3 10	2 - -
Profit -			21 10 8		26 12 6		42 2 6		33 2 6		5 1 10	24 - -	20 - -	11 7 10	53 - -
	10. Net profit derivable, after deducting charges as per item 9 from that of No. 6 -														
	11. Average yield per acre -		2 11 4		8 14 10		14 - 10		11 - 10		- - -	- - -	- - -	- - -	- - -
Centage -			34 - -		29 - -		4 - -		18 - -		- - -	- - -	- - -	- - -	- - -
	12. Between items 4 and 8 -														

Cuddapah District, Collector's Office, on Circuit at Muddenpully,
13 April 1850.(signed) J. H. Cochrane,
Collector.

(No. 16.)

II.
Madras.

Para. 1. It appears from the reports submitted with the foregoing letter, that in the Guntoor district 85,099 acres of land were under cotton cultivation in fusly 1258, of which 49,715 acres, assessed at 72,642 rupees, were Government land, 8,114 acres rent free enams, and 27,270 acres enams paying quit rent, amounting to 12,452 rupees. According to a previous report, the extent under this cultivation was only 47,299 acres.

13 Nov. 1848

2. In Tinnevely, 24,436 chains of sircar land, assessed at 76,336 rupees, were under cotton cultivation in fusly 1258, whereas in fusly 1257, the extent was 24,187 chains, assessed at 73,333 rupees; showing a difference in favour of the year under notice of 248 chains in extent, and 3,003 rupees in assessment, besides an increase of 400 chains in the enam villages. The crop is reported to have been more favourable, and the exports exceeded those of fusly 1257, by 2,439 candies; the cultivation was almost wholly of indigenous cotton. The extent of land sown with foreign seed was inconsiderable, 33 $\frac{1}{4}$ chains, and much of this failed.

Chain 3.64 acres

3. It is stated by the Board of Revenue that measures were taken for ascertaining the additional quantity of land in Satloar, the chief cotton-growing talook, that might be brought under cultivation if a remission of tax were allowed, and that ryots were found willing to undertake the cultivation of 1,167 chains, waste, from periods varying from 10 to 30 years, on a remission in some instances of one-fourth, and in others of one-half the regular assessment.

4. The Governor in Council desires to call the attention of the Board of Revenue to the objections urged by the Honourable Court of Directors to the remission of any portion of the assessment of lands taken up for cotton cultivation, as having "the effect of forcing a factitious cultivation, which under ordinary circumstances could not be carried on." A copy of the despatch conveying these sentiments was furnished to the Board of Revenue, in extract minutes of consultation, 1st June 1849, No. 544, for communication to the collectors of Coimbatore and Tinnevely. The Governor in Council apprehends that if the lands are of the description stated, "Poonjah waste lands of 10, 20 and 30 years' standing," the ordinary cowl rates of the district afford sufficient encouragement for their occupation, in whatever way may seem profitable to the ryot, without the necessity of a special indulgence to force the cultivation of cotton either indigenous or foreign. The acting collector of Tinnevely is of opinion that the mere granting of remission is not likely to produce any material extension of cotton cultivation, and thinks, with justice, that the certainty of a market and remunerating prices are required, and sufficient to promote that object.

Revenue despatch
4 July 1848, No.
11, para. 3.

5. In Coimbatore the land employed in cotton cultivation in fusly 1258, was—

	Poonjah.		Garden.		Nunjah.		TOTAL.
	Bullah.	Settlement.	Bullah.	Settlement.	Cawnies.	Settlement.	Settlement.
Government Land	25,110	1,11,112	621	7,729	209	504	1,19,346

besides 2,446 bullahs of enam lands. The produce, chiefly indigenous, of the annual and triennial varieties is calculated to have been 32,200 candies of seed cotton, of which 9,600 are estimated to have been consumed by the growers, and 22,600 brought to market. The crop of the present year is generally considered favourable.

6. In Kurnool 86,368 acres of land were occupied with cotton, of which 54,298 were Government, and 32,070 enam, lands; the largest portion was cultivated entirely with cotton, and the remainder cotton mixed with other produce. The crops suffered from blight, but the produce is supposed to have reached 25,700 maunds. It should have been stated whether these are Indian maunds, and if not, what maund is intended, and its equivalent in pounds avoirdupois. According to a previous report the extent of land under cotton cultivation was only 19,581 acres. It is presumed that the late agent has applied to Dr. Wight for a fresh supply of seed, if not, it is desirable that the present agent should obtain a supply, and carry out the views of his predecessor.

13 Nov. 1848.

7. In Madura 50,846 cawnies were under cotton cultivation, being 2,355 cawnies below the quantity similarly occupied in fusly 1257, the decrease proceeding from the season being less favourable for the production of cotton.

II.
Madras.

Of the above extent—

17,482	cawnies,	assessed at	41,602	rupees,	were	circar,
2,674	„	-	-	„	-	enam,
30,689	„	-	-	„	-	zemindary.

8. In Bellary 270,257 acres were taken up for this species of cultivation, of which 165,094 acres, settled at 1,61,843 rupees were circar, and 105,163 acres enam. The ryots have been advised to pay more attention to picking and cleaning; and experiments, it is stated, have been made, and are still in progress, to improve the staple by introducing foreign seed. The acting collector seems fully alive to the importance of the subject, in which he appears to take much interest. It is observed, in reference to the concluding part of his letter, that he has been authorised to procure five gins from Dharwar, and that the Superintendent of the experimental cotton farms at Coimbatore has been directed to supply him with as many of the cottage saw gins sent out from England as may be requisite, and can be spared.

9. In Cuddapah 87,309 acres have been under cotton cultivation, in fusly 1258, being 12,568 acres above fusly 1257, and it is expected that a further extension will take place in fusly 1259. Here also, as in Bellary, the attention of the ryots has been directed to the importance of careful picking and cleaning, and of keeping unmixed the superior from the inferior kinds of produce. The same measures have been taken as in the case of the Bellary district for furnishing the collector with Dharwar and English gins.

10. The Board of Revenue have properly noticed the want of uniformity in the statements submitted by the several local authorities, and the Governor in Council approves of a form of statement having been circulated for the guidance of the collectors in the preparation of their future returns.

(signed) *T. Pycroft,*

Fort St. George, 30 August 1850.

Secy. to Govt.

REVENUE Letter from the Government of Fort St. George, dated
7 July 1851, No. 35.

REFERRING to the papers transmitted with our letter in this department, dated 5th December 1848, No. 88, we have the honour to submit for the information of your Honourable Court, copies of reports from the collectors of the cotton-growing districts under this Presidency, on the cultivation of cotton in their respective districts for Fusly 1259, together with a copy of a communication from the Board of Revenue with which they were accompanied, and an extract from the Minutes of Consultation, dated 28th June 1851, containing our remarks upon the subject.

EXTRACT Fort St. George Revenue Diary to Cons. of 1 July 1851.

16th June.—Received the following.

(No. 247.)

From *W. H. Bayley*, Esq., Secretary to the Board of Revenue, to *Sir H. C. Montgomery*, Bart., Chief Secretary to Government.

Sir,

1. I am directed by the Board of Revenue to submit for the information of Government the accompanying papers,* on the subject of the cultivation of cotton in certain districts in the Madras Presidency during fusly 1259.

2. A general

* From Guntoor, 19 Dec. 1850, in Cons. 2 Jan. 1851; from Bellary, 27 Nov., in Cons. 12 Dec. 1850; from Cuddapah, 21 April, in Cons. 9 June 1851; from Kurnool, 21 April, in Cons. 9 June 1851; from Madura, 13 Dec. 1850, in Cons. 2 Jan. 1851; from Tinnevely, 22 Nov., in Cons. 5 Dec. 1850; from Coimbatore, 29 Nov., in Cons. 9 Dec. 1850.

2. A general view of the extent of this species of cultivation will be obtained from the following statement.

DISTRICT.	Circar Land.		Surva Enam.	Enam Paying Quit Rent.		TOTAL.	
	Extent.	Assessment.	Extent.	Extent.	Assessment.	Extent.	Assessment.
	<i>Acres.</i>	<i>Rupees.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Rupees.</i>	<i>Acres.</i>	<i>Rupees.</i>
Guntoor - - - -	42,754	64,752	7,234	23,995	11,039	73,984	75,792
Bellary - - - -	1,35,086	1,71,167	65,391	21,955	7,585	2,22,432	1,78,752
Cuddapah - - - -	82,365	1,19,865	-	-	-	82,365	1,19,865
Kurnool {	only cotton - -	38,548	52,697	8,717	14,404	5,901	61,657
	partly cotton - -	4,023	4,358	941	24	12	4,999
	42,571	57,056	9,658	14,425	5,913	66,656	62,970
Madura - - - -	60,229	89,361	2,857	458	777	63,545	90,139
Tinnevelly - - - -	89,686	75,382	3,331	7,350	7,892	1,00,369	83,275
Coimbatore - - - -	1,05,754	1,25,238	5,589	2,215	1,569	1,13,558	1,26,807
TOTAL - - -	5,58,448	7,02,824	94,062	70,400	34,778	7,22,911	7,37,602

3. It will thus be seen that the whole extent of land occupied with cotton cultivation, including enam, was *Acres* 7,22,911. 10. 9 $\frac{1}{2}$, yielding an assessment of *Rs.* 7,37,602. 12. 4. This result is considerably below the outturn of the preceding season; the heavy rains of August, September, and October, having, it is represented, proved prejudicial in the majority of the cotton-growing districts to an enlarged occupation of land for the purposes of this species of cultivation; on the other hand there was a slight improvement in the cotton cultivation of the southernmost districts, Tinnevelly and Coimbatore, though the revenue from this source, owing to the lands taken up being assessed at lower rates, yielded a smaller amount than in the previous fusly.

4. A comparative view of the two years' cultivation will be seen from the appended abstract statement.

DISTRICTS.	Fusly 1258.		Fusly 1259.		Increase.		Decrease.	
	Extent.	Assessment.	Extent.	Assessment.	Extent.	Assessment.	Extent.	Assessment.
	<i>Acres.</i>	<i>Rupees.</i>	<i>Acres.</i>	<i>Rupees.</i>	<i>Acres.</i>	<i>Rupees.</i>	<i>Acres.</i>	<i>Rupees.</i>
Guntoor - - -	78,478	80,443	73,984	75,792	-	-	4,494	4,650
Bellary - - -	2,70,257	3,72,329	2,22,432	1,78,752	-	-	47,825	1,93,577
Cuddapah - - -	87,512	1,26,538	82,365	1,19,865	-	-	5,146	6,667
Kurnool - - -	86,368	Not given	66,656	62,970	-	-	19,711	-
Madura - - -	67,232	1,02,404	63,545	90,139	-	-	3,687	12,265
Tinnevelly - - -	98,457	83,292	1,00,369	83,278	1,911	-	-	16
Coimbatore - - -	1,11,781	1,30,814	1,13,558	1,26,807	1,776	-	-	4,006
TOTAL - - -	8,00,087	8,95,816	7,22,911	7,37,602	3,688	-	80,864	2,21,183

5. The trial of American seed is still made to a very limited extent, and the ryots are represented as totally disinclined to change their present practice.

II.
Madras.

6. Mr. Murray's report discusses the subject of cotton cultivation only with reference to the New Orleans species; and the conclusion he arrives at is, that while experiments in his district have shown that the American seed yields a larger return than the country produce, the natives are opposed to its introduction generally, as the climate of Cuddapah appears to be unfavourable to its growth, and it is liable to be easily injured. He suggests, however, that the ryots should be supplied with seed from Coimbatore, and should be placed under the instruction of a person who has gained his experience under Dr. Wight. In Madura, Mr. De Fonclair appears to have, to a small extent, prosecuted the cultivation successfully, while in Tinnevely a Mr. Lees is represented as having made some successful experiments along the coast with the American seed; but, as observed by the Board in their Proceedings of the 25th July, para. 9, the successful cultivation of the New Orleans species of cotton in the districts under this presidency must depend on a regular demand and assistance from capitalists, in the shape of advances.

(signed) *W. H. Bayley,*Revenue Board Office, Fort St. George,
12 June 1851.

Secretary.

To *W. H. Bayley, Esq.,* Secretary to the Board of Revenue, Fort St. George.

Sir,

GUNTOOR.

I HAVE the honour to forward the accompanying statement, in the form prescribed in your letter of 25th July last, of the cotton cultivation, and its assessment in this district, for Fusly 1259, A.D. 1849-50, compared with the preceding year.

2. The heavy rains in August, September, and October proved unfavourable to the cotton cultivation, and some land upon which this crop was destroyed was afterwards appropriated to crops of grain.

3. The deficiency of 11,115 acres, with an assessment of 9,301 rupees, is not, however, to be wholly attributed to the above cause, but partly also to errors which were detected in statement of fusly 1258, furnished from two of the talooks, as follows:

TALOOKS.	As per Statement for Fusly 1258.		As per Corrected Account.		Difference : Decrease.	
	Land.	Assessment.	Land.	Assessment.	Land.	Assessment.
	<i>Acres. c.</i>	<i>Rs. a. p.</i>	<i>Acres. c.</i>	<i>Rs. a. p.</i>	<i>Acres. c.</i>	<i>Rs. a. p.</i>
Condaveed - -	7,544 22	9,541 15 9	7,020 31	8,967 7 4	523 31	574 3 5
Innacondah - -	8,873 26	5,693 14 8	2,776 21	1,617 5 4	6,097 5	4,076 9 4
TOTAL - -	16,418 8	15,235 14 5	9,797 12	10,584 12 8	6,620 36	4,651 1 9

This reduces the decrease for fusly 1259 to *Acres* 4,494. 9., and *Rs.* 4,650. 11. 11.

4. The outturn of the season is estimated roughly at 17,312 candies, averaging about $4\frac{1}{10}$ tooms to the acre; while last year it was estimated at 24,238 candies, or about $5\frac{1}{10}$ tooms to the acre.

5. It appears from the frontier duty accounts that the equivalent of 200 candies of undressed cotton was exported into the Nizam's country. The quantity said to have been exported is stated, though perhaps not with great accuracy, as follows:

TALOOKS.	Rough Cotton.	Dressed Cotton.	Equivalent in Rough Cotton.	Total of Columns 2 and 4.
1.	2.	3.	4.	5.
	<i>Candies. t.</i>	<i>Candies. t.</i>	<i>Candies. t.</i>	<i>Candies. t.</i>
Coorapad - - - - -	214 15	122 12	490 8	705 3
Narasarowpet - - - - -	- - -	300 0	1,200 0	1,200 0
Innacondah - - - - -	- - -	100 10	402 0	402 0
Guntoor - - - - -	70 0	17 5	69 0	139 0
	284 15	540 7	2,161 8	2,446 3
Palnaud District - - - - -	- - -	1,440 0	5,760 0	5,760 0
TOTAL - - -	281 15	1,980 7	7,921 8	8,206 3

6. The comparatively small quantity which passed the frontier at the Palnaud, compared with the cotton said to have been exported, is explained partly to the greater demand for it in the eastern zillahs, and partly to the business of the high road through the Palnaud, which induces the merchants to store it at convenient places, and then, as prices rise, to convey the portion destined for Hyderabad by the more circuitous route through the Masulipatam district.

7. There was no cotton exported by sea. Attempts were made to introduce the American seed in a few places, to a small extent, in the several talooks; but the ryots, whether from indifference or negligence in the culture, were not very successful; nor do the cultivators seem disposed to adopt the superior description of American seed, notwithstanding its advantages being, as opportunity affords, repeatedly impressed upon them, and one or two fine specimens being exhibited of the cotton grown in gardens.

Guntoor Zillah, Collector's Office, Crossoor,
19 December 1850.

(signed) H. Stokes,
Collector.

TO PROMOTE THE CULTIVATION OF COTTON IN INDIA. 85

To W. H. Bayley, Esq., Secretary to the Board of Revenue, Fort St. George.

II.
Madras.

Sir,

1. WITH reference to the Board's Proceedings of the 10th January 1849, I have the honour to submit my special report on cultivation, &c. of cotton in this district, for the Fusly year just expired.

BELLARY.

2. The annexed is an abstract of the accompanying statement, showing the extent of land occupied by cotton culture this year compared with that in the preceding fusly.

	Extent of Cotton Culture for Fusly 1258.	Extent of Cotton Culture for Fusly 1259.	Comparison.	
			Increase.	Decrease.
Circar Land - - -	1,65,194	1,35,086	- - -	30,008
Enam Land - - -	1,05,163	87,846	- - -	17,817
TOTAL - - -	2,70,257	2,22,432	- - -	47,825

It will be observed that the cultivation fell short this year by 47,825 acres, which was occasioned by the rains falling unfavourable for the sowing season, but the crop was pretty good.

I have already reported to the Board that I have been endeavouring to introduce the Darwar-saw-gins, and have received nine gins from that place, eight of which have been resold to ryots, and I am taking measures for procuring more. When the ryot can be prevailed on to purchase, the Government will be put to no expense, but I shall at the same time consider myself at liberty to procure the number sanctioned by Government for the purpose of showing the advantage to be derived from them to ryots unwilling to purchase at present.

See letter to the Board, dated 6th April 1850.

(signed) C. Pelly, Collector.

Bellary Collector's Office, on Circuit at Tadputry,
27 November 1850.

STATEMENT, showing the Total Extent of LAND cultivated with COTTON in the District of BELLARY, for Fusly 1259
A.D. 1849-50, prepared agreeably to the Form annexed to the Board's Letter of the 25th July 1850.

No.	NAMES of TALOOKS.	CIRCAR LAND.		ENAM LAND.			TOTAL.			REMARKS.
		Acres.	Assessment.	Surva Enam.	Jodee Enam.		Total of Acres in Columns 5 and 6.	Acres in Columns 3 and 8.	Assessment in Columns 4 and 7.	
				Acres.	Acres.	Quit-Rent.				
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1	Bellary - - -	17,786	23,354	11,810	3,363	309	15,173	32,959	23,663	There being in these 12 Talooks a great extent of Ragud Land, Cotton is cultivated. The following six Tal- looks are chiefly com- prised of Ragud: — 1st Bellary. 6 Adonie. 7 Goollem. 9 Gooty. 11 Raidroog. 12 Tadputry.
2	Kumply - - -	1,979	1,129	791	320	104	1,111	3,090	1,233	
3	Hurpunhully - -	7,538	6,641	555	933	634	1,488	9,026	7,275	
4	Koodleghe - - -	1,666	1,534	438	152	128	590	2,256	1,662	
5	Hoovinhaduguly -	10,399	12,083	768	2,675	2,204	3,443	13,842	14,287	
6	Adonie - - -	16,300	23,671	9,700	1,059	391	10,759	27,059	24,062	
7	Goollem - - -	19,495	39,725	12,413	5,412	1,808	17,825	37,320	41,533	
8	Punchapollem - -	6,606	12,455	3,774	918	440	4,682	11,288	12,895	
9	Gooty - - -	14,207	20,285	12,893	3,551	842	16,444	30,651	21,127	
10	Yadahee - - -	5,885	5,734	3,855	1,320	285	5,175	11,060	6,019	
11	Raidroog - - -	4,378	5,338	1,267	1,197	218	2,464	6,842	5,556	
12	Tadputry - - -	11,911	14,986	5,584	671	177	6,255	18,166	15,163	
	TOTAL - - -	1,18,150	1,66,935	63,848	21,561	7,540	85,409	2,03,559	1,74,475	
1	Anuntapoor - -	2,031	638	234	121	22	355	2,386	660	In these five Talooks there is very little Ragud.
2	Pengondah - - -	7,940	1,441	553	117	9	670	8,610	1,450	
3	Codecondah - - -	414	213	9	-	-	9	423	213	
4	Madagaserah - -	484	222	2	-	-	2	486	222	
5	Dhurmaverum - -	6,067	1,718	745	156	14	901	6,968	1,732	
	TOTAL - - -	16,936	4,232	1,543	394	45	1,937	18,873	4,277	
	GRAND TOTAL	1,35,086	1,71,167	65,391	21,955	7,585	87,346	2,22,432	1,78,752	

Bellary Collector's Office, on Circuit Tadputry,
27 November 1850.

(E. E.)

(signed) C. Pelly, Collector.

II.
Madras.

To W. H. Bayley, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

CUDDAPAH.

Para. 1. I HAVE the honour to inform you that the Mexican cotton seed supplied by the Board of Revenue, with the intention of improving the cotton grown in this district, and thereby benefiting not only Government but also the cultivators, was distributed throughout the 14 talooks in this district, and was sown in the dry lands of 33 villages and garden land of 39 villages; poonasah and wet land of one village; total 73 villages. The extent and assessment of the various descriptions of lands appropriated for the cultivation of this description of produce, together with the weight of seeds sown, is particularised in the margin.*

† 25 lb.

2. In some talooks the seeds sown failed to germinate, whilst in others, after the plants reached to a certain height, they were destroyed by blight. In both garden, wet and dry, where the plants reached to the extent of flowering, the crops became injured equally on all descriptions of land on which the plants were raised. Whether this failure is to be attributed to the fault of the seed or to the climate, I feel unable to give a decided opinion, but the seed collected from that portion which yielded produce was again sown during the current fusly, and yielded a very unsatisfactory return. On the dry and garden lands attached to certain villages in the northern talooks, Calcootla, Doovoor, &c., a better return was yielded than in any of the other talooks. The accompanying marginal statement† shows the number of villages, the extent of land sown with Mexican cotton, its assessment and the weight of seed. The pod of this description of cotton is much larger than that commonly grown in the country, the fibre is longer and whiter, and the thread manufactured is of softer and of a better quality than that of the cotton indigenous to the country. Out of one maund‡ of Mexican cotton, including both the seed and the fibre, the produce realised is two-thirds seed, and one-third cotton, whilst that of the country was one-fourth cotton and three-fourths seed, showing a preference in favour of Mexican cotton. Under these circumstances, though the Mexican cotton yields a larger return of produce, and the ryots are willing to cultivate, knowing it to be of a better quality, still they object to sowing the Mexican on the plea that the return is not sufficiently remunerative for the expense of their labour and industry on account of the liability of the plants to injury from blight and other causes; they therefore give the preference to the coarser kind less liable to injury. During the time of the annual settlement, the ryots were persuaded as much as possible to turn their attention to the cultivation and improvement of the staple article of cotton, and to be more careful both in the picking and cleaning; they were particularly requested to endeavour to acclimatise the Mexican cotton to this district which has been already shown is of a superior quality to that at present produced.

3. By the reports received from the tahsildars, as well as from the information I was able to gather from the ryots themselves, I am inclined to believe that the soil or atmosphere in this part of the country is not applicable for the production of this species of cotton, and I have

	Extent.			Assessment.			Weight of Seeds Sown.
	A.	c.	a.	Rs.	a.	p.	
* Dry land - - -	5	17	12½	10	13	10	592
Garden ditto - - -	2	31	11½	26	6	9	292
Wet ditto - - -	0	1	4	-	10	-	5
Poonasa - - -	0	1	8	-	2	8	4
TOTAL - - -	8	12	13¾	38	1	-	893

† Description of Land.	Number of Villages in which the Cotton Produced.	Extent of Land.	Amount of Assessment.	Quantity of Seeds Sown.	Quantity of Cotton Produced.
		Acres. c. a.	Rs. a. p.	Tolas.	Tolas.
Dry - - -	14	2 10 7½	7 6 10	456¾	3,106
Garden - - -	18	1 4 13¾	9 15 2	185	4,529½
Wet - - -	1	0 0 8	- 4 -	2	30
TOTAL - - -	33	3 15 13¼	17 10 -	643¾	7,665½

have considerable doubts whether this species of produce will ever be a staple commodity for export from this district. In order to endeavour to introduce this description of cotton more universally, it might be advisable to supply the cultivators with seeds produced from the cotton farm at Coimbatore, under the management of Dr. Wight, where the seed has been acclimatised for several years; this seed might answer better than that formerly sent.

4. It might not be unadvisable, in order to carry out the views of Government and instruct the cultivators in the mode of culture and the peculiar quality of the soil required for the production of the Mexican cotton, to send a person who has gained experience under Dr. Wight to instruct the cultivators, and I would beg to suggest that an assistant from the cotton farm at Coimbatore, capable of giving the necessary information, be requested to visit this district in order to explain the best method of cultivating Mexican cotton.

Cuddapah, Collector's Office,
21 April 1851.

(signed) M. Murray,
Acting Collector.

To W. H. Bayley, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

I HAVE the honour to forward the report upon the cultivation of cotton in the Kurnool district for fusly 1259, called for in the circulars of the Board, under date 18th January 1849, and 25th July 1850.

KURNOOL.

2. The accounts received from the talooks appear to show that only 66,656 acres were cultivated with cotton in fusly 1259, against 86,368 acres in Fusly 1258 or 19,712 acres less than had been taken up for that cultivation in the previous year.

The extent of land on which cotton was grown may be classified under the two following heads, and the details of Circar and Enam land are also shown.

	Acres.
Circar land cultivated with cotton only - - - - -	38,548
Ditto ditto, a mixed crop of cotton and other produce - - - - -	4,023
	<u>42,571</u>
Enam land cultivated with cotton only - - - - -	23,118
With a mixed crop of cotton and other produce - - - - -	965
	<u>24,083</u>
	<u>66,656</u>

3. In explanation of this very great falling off in the extent of land cultivated with cotton in the last fusly, as compared with the previous one, I am informed that the unusually heavy rains at the commencement of the season of cotton sowing operations led many ryots who had unusually cultivated cotton to try some other crops which they considered less likely to suffer injury from the undue excess of rain at that period, and that in many other instances where the cotton seeds had been planted and had been destroyed, the attempt to raise a cotton crop was abandoned and other seeds were sown.

4. The crops produced were inferior, and the price was below that of the previous year, as shown in the margin.* It will be observed that I have entered the price of cleaned cotton, by which I merely mean cotton wool separated from the seed, as I understand that the cultivators hardly ever part with the cotton until they have separated the fibre from the seed, reserving the latter for their cattle. I mention this as I observe that in my predecessor's report, the price of uncleaned cotton was entered last year.

5. I am not aware on what data the exports from Kurnool during fusly 1258 were entered, nor did Mr. Phillips express any conviction of their accuracy. As there is now no available machinery for obtaining any correct details on these points, I have not attempted to frame any estimate of the quantity exported from Kurnool in fusly 1259.

6. Cotton

* Average rate per Candy of cleaned Cotton :

	Rs.	a.	p.
Fusly 1258 - - - - -	2	2	9
„ 1259 - - - - -	1	13	10 ½

II.
Madras.

6. Cotton is grown in this district on two different kinds of soil, the regur or black soil, and on the red. The cotton produced on the former is of a superior description to that grown on the other, and it appears to be the usage of the country not to mix the two qualities.

7. About five acres of land were planted with the American cotton seed, but as the season was so much against the indigenous cotton, it could not be expected that a very abundant crop would be obtained from the American seed, the produce of which was very small even in the more favourable season which preceded it.

8. When I received the Proceedings of the Board of Revenue, under date 30th September 1850, the rainy season was too far advanced for any attempt to be made to try the Mexican cotton seed, and I therefore abstained from writing to Dr. Wight for a supply of seed.

9. I have now addressed him on the subject, but when I see the apathy and indolence of most of the ryots of this district in regard to the state of their land, the little care which is taken of the plant in its growth towards maturity, the utter absence of all attempts to clear the ground from weeds and thorny bushes, I am not very sanguine of their being easily induced to exhibit much interest in the experiment. The fault does not arise entirely from indolence of nature, but a bad and oppressive system through a long course of years has had the effect of discouraging all energy exerted in the right direction, and the habit will not be easily overcome.

10. I forward the statement called for by the Board in their letter of the 25th July 1850.

(signed) *T. D. Lushington,*

Kurnool District Agent's Office, on Circuit,
Velgode, 21 April 1851.

Agent to the Governor.

STATEMENT showing the Total Extent of Land cultivated with Cotton in the District of Kurnool in Fusly 1259.

No.	TALOOKS.	Circar Land.		Surva Enams.	Enams paying Quit Rent.		TOTAL.	
		Acres.	Assessment.	Acres.	Acres.	Quit Rent Assessment.	Acres.	Assessment and Quit Rent.
1.	2.	3.	4.	5.	6.	7.	8.	9.
		<i>Acres. g. as.</i>	<i>Rs. a. p.</i>	<i>Acres. g. as.</i>	<i>Acres. g. as.</i>	<i>Rs. a. p.</i>	<i>Acres. g. as.</i>	<i>Rs. a. p.</i>
1	Chagulmurry -	8,912 27 8 $\frac{1}{2}$	13,765 6 -	1,737 2 6	3,863 5 8	1,534 7 11	14,512 35 6 $\frac{1}{4}$	15,299 13 11
2	Sirwell - -	14,158 30 4 $\frac{1}{2}$	18,667 6 3	2,642 18 4 $\frac{1}{2}$	6,378 24 6 $\frac{1}{2}$	2,454 10 5	23,179 32 15 $\frac{1}{4}$	21,122 - 8
3	Nundial - -	8,231 35 7 $\frac{1}{2}$	10,339 14 3	1,544 16 12 $\frac{1}{2}$	2,832 32 1	1,341 7 9	12,609 4 5	11,681 6 -
4	Panniem - -	3,448 15 5 $\frac{1}{2}$	5,721 9 1	1,309 4 7 $\frac{1}{2}$	882 14 11 $\frac{1}{2}$	317 5 9	5,639 34 8 $\frac{1}{4}$	6,038 14 10
5	Dhone - - -	1,869 38 9	1,813 2 -	527 24 10 $\frac{1}{2}$	24 12 0	12 - -	2,421 35 3 $\frac{1}{2}$	1,825 2 -
6	Goodoor - -	2,220 35 5 $\frac{1}{2}$	2,617 9 4	448 4 7	- - -	- - -	2,668 39 12 $\frac{1}{2}$	2,617 9 4
7	Nundecootoor -	3,031 25 12 $\frac{1}{2}$	3,534 - 4	1,134 28 11	350 23 6 $\frac{1}{2}$	166 10 0	4,566 38 1 $\frac{1}{2}$	3,700 10 4
8	Atcoor - - -	647 23 7 $\frac{1}{2}$	597 2 1	315 16 12 $\frac{1}{2}$	94 2 4 $\frac{1}{2}$	87 5 2	1,057 2 8 $\frac{1}{2}$	684 7 3
		42,571 31 11 $\frac{1}{2}$	57,056 1 4	9,658 36 10 $\frac{1}{2}$	14,425 34 6 $\frac{1}{4}$	5,913 15 -	66,656 22 12 $\frac{1}{2}$	62,970 - 4
	Particulars of the above:							
	Only cotton cultivated	38,548 14 10 $\frac{1}{2}$	52,697 8 -	8,717 17 10	14,401 22 6 $\frac{1}{4}$	5,901 15 -	61,657 14 10 $\frac{1}{2}$	58,600 7 -
	Cotton cultivated, together with cun-gony - - -	4,023 17 1 $\frac{1}{2}$	4,358 9 4	941 19 0 $\frac{1}{2}$	24 12 0	12 - -	4,999 8 2	4,369 9 4

Kurnool District Agent's Office, on Circuit, Velgode,
21 April 1851.

(signed) *T. D. Lushington,*
Agent to the Governor.

To *W. H. Bayley*, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

1. I HAVE the honour to transmit the report and statement relative to the cultivation of cotton in Fusly 1259, required by the circular orders of the 18th January 1849.

MADURA.

2. The adverse nature of the season described in my report on the jummaundy led to a decrease in the cultivation, as shown in the margin.*

The yield per acre is stated to have been a little more than three-eighths pody seed cotton, both in Ramnad and Teroomungalum, in which the bulk of the cotton grown in the district is produced. The article is stated by the tahsildar of Teroomungalum to have been good, but from merchants I have heard a different account. The zemindar of Ramnad has afforded me no information on this point. Probably the quality of the cotton was better in Teroomungalum than elsewhere, owing to that talook having suffered less from drought than the other tracts producing cotton. The price averaged about $8\frac{1}{2}$ rupees per pody of uncleaned cotton, which is $1\frac{1}{2}$ in excess of the price of last year, and the whole stock is understood to have been sold off. Of the activity of the trade I have proof in the number of bandies which returned with salt from the Tinnevely district, where the cotton is screwed for the English markets.

3. No American cotton was cultivated in this district in the Fusly under report, except in Amenaiknoor, where Mr. De Fondclair is carrying on an experiment with some success, but to a very limited extent. The soil of that zemindary is red, or approaching that description, whereas that of the large tracts cultivated in Ramnad and the Teroomungalum and Jempully talooks is black.

Madura, 13 December 1850.

(signed) *R. D. Parker*,
Collector.

				<i>Acres.</i>	<i>as.</i>
* Fusly 1258	-	-	-	67,232	13 $\frac{1}{2}$
" 1259	-	-	-	63,545	5 $\frac{1}{2}$
Decrease	-	-	-	3,687	8

† 1 pody seed cotton, 337 $\frac{1}{2}$ lbs.

3 - ditto affords 1 pody clean cotton, which is 243 $\frac{3}{4}$ lbs.

STATEMENT showing the Total Extent of LAND Cultivated with COTTON in the Districts of Madura and Dindigul, for Fusly 1259.

Number.	TALOOKS.	CIRCAR LAND.		SURVA ENAM.	ENAMS paying Quit Rent.		TOTAL.	
		Extent of Land.	Assessment.		Extent of Land.	Assessment.	Extent of Land.	Assessment.
1.	2.	3.	4.	5.	6.	7.	8.	9.
		<i>Acres. as.</i>	<i>C. Rs. a. p.</i>	<i>Acres. as.</i>	<i>Acres. as.</i>	<i>C. Rs. a. p.</i>	<i>Acres. as.</i>	<i>C. Rs. a. p.</i>
1	Madacolum - -	- - -	- - -	- - -	143 3 $\frac{3}{4}$	354 8 1	143 3 $\frac{3}{4}$	354 8 1
2	Teroomungalum - -	16,549 15 $\frac{1}{4}$	31,505 14 10	2,150 2 $\frac{1}{4}$	0 12 $\frac{3}{4}$	372 15 10	18,950 14 $\frac{3}{4}$	31,878 14 8
3	Meylore - - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
4	Ramagherry - - -	297 3	414 14 6	- - -	- - -	- - -	297 3	414 14 6
		16,847 2 $\frac{1}{4}$	31,920 13 4	2,150 2 $\frac{1}{4}$	394 0 $\frac{1}{2}$	727 7 11	19,391 5 $\frac{1}{2}$	32,648 5 3
5	Taudicomboo - -	470 8 $\frac{1}{4}$	491 1 2	- - -	- - -	- - -	470 8 $\frac{1}{4}$	491 1 2
6	Jempully - - -	2,300 3 $\frac{1}{4}$	3,774 9 6	23 10 $\frac{1}{4}$	- - -	- - -	2,323 13 $\frac{1}{4}$	3,774 9 6
7	Thenkurray - -	1,338 2 $\frac{3}{4}$	1,532 15 7	22 5	- - -	- - -	1,360 7 $\frac{3}{4}$	1,532 15 7
8	Nellacottah - -	1,094 2 $\frac{1}{2}$	1,186 11 11	38 10 $\frac{3}{4}$	- - -	- - -	1,132 13 $\frac{1}{4}$	1,186 11 11
		5,203 0 $\frac{3}{4}$	6,985 6 2	84 10	- - -	- - -	5,287 10 $\frac{3}{4}$	6,985 6 2
	TOTAL - - -	22,050 3	38,906 3 6	2,234 12 $\frac{3}{4}$	394 0 $\frac{1}{2}$	727 7 11	24,679 0 $\frac{1}{4}$	39,633 11 5

STATEMENT showing the Total Extent of Land cultivated with Cotton in the Districts of Madura, &c.—continued.

Number.	TALOOKS.	CIRCAR LAND.		SURVA ENAM.	ENAMS paying Quit-Rent.			TOTAL.		
		Extent of Land.	Assessment.		Extent of Land.	Assessment.	Extent of Land.	Assessment.		
1.	2.	3.	4.	5.	6.	7.	8.	9.		
		<i>Acres. as.</i>	<i>Rs. a. p.</i>	<i>Acres. as.</i>	<i>Acres. as.</i>	<i>Rs. a. p.</i>	<i>Acres. as.</i>	<i>Rs. a. p.</i>		
1	Ramnad - zemindary	25,889 2 $\frac{1}{4}$	34,228 15 7	96 4 $\frac{1}{2}$	- -	- - -	25,985 6 $\frac{1}{2}$	34,228 15 7		
2	Shevagunga - do.	1,027 3 $\frac{1}{2}$	921 3 1	24 2 $\frac{3}{4}$	64 6 $\frac{3}{4}$	50 - 3	1,115 13	971 3 4		
3	Siroopaulay - do.	—	—	—	—	—	—	—		
4	Pooliengolum - do.	380 12 $\frac{1}{2}$	459 9 3	67 14 $\frac{1}{2}$	- -	- - -	448 11 $\frac{1}{2}$	459 9 3		
5	Jothelnaiknoor - do.	20 4	35 14 4	- -	- -	- - -	20 4	35 14 4		
6	Dhoddappanaiknoor do.	15 15	16 1 10	- -	- -	- - -	15 15	16 1 10		
7	Ooddappanaiknoor do.	156 12	184 4 2	6 0 $\frac{1}{2}$	- -	- - -	162 12 $\frac{1}{2}$	184 4 2		
8	Kellacottay - do.	59 5 $\frac{1}{2}$	116 - 2	18 12 $\frac{1}{2}$	- -	- - -	78 2 $\frac{1}{4}$	116 - 2		
9	Nadoocottay - do.	81 10	106 5 9	38 1 $\frac{3}{4}$	- -	- - -	119 11 $\frac{3}{4}$	106 5 9		
10	Mailacottay - do.	129 5 $\frac{1}{4}$	210 10 9	51 7 $\frac{1}{4}$	- -	- - -	180 13	210 10 9		
11	Velliacoondum - do.	—	—	—	—	—	—	—		
12	Ayacoody - do.	4,144 13 $\frac{3}{4}$	4,748 9 10	211 12	- -	- - -	4,356 9 $\frac{3}{4}$	4,748 9 10		
13	Mombaray - do.	38 13 $\frac{3}{4}$	47 5 11	- -	- -	- - -	38 13 $\frac{3}{4}$	47 5 11		
14	Yedyacottay - do.	134 13	96 14 3	- -	- -	- - -	134 13	96 14 3		
15	Bodynaiknoor - do.	69 2 $\frac{1}{4}$	73 9 8	- -	- -	- - -	69 2 $\frac{1}{4}$	73 9 8		
16	Thavarom - do.	—	—	—	—	—	—	—		
17	Yerachekanaiknoor do.	—	—	—	—	—	—	—		
18	Guntamanaiknoor do.	176 4 $\frac{1}{2}$	193 1 5	- -	- -	- - -	176 4 $\frac{1}{2}$	193 1 5		
19	Cunnewady - do.	1,147 14 $\frac{1}{4}$	1,662 10 6	- -	- -	- - -	1,147 14 $\frac{1}{4}$	1,662 10 6		
20	Ammianaiknoor do.	95 7 $\frac{3}{4}$	133 5 6	2 15 $\frac{1}{4}$	- -	- - -	98 7	133 5 6		
21	Cadavoor - do.	127 9	141 15 4	6 7 $\frac{3}{4}$	- -	- - -	134 0 $\frac{3}{4}$	141 15 4		
22	Maroongapoory do.	563 8 $\frac{3}{4}$	617 5 10	59 13 $\frac{1}{4}$	- -	- - -	623 6	617 5 10		
23	Valoor Moottah - -	3,679 10 $\frac{1}{2}$	6,242 4 10	38 7 $\frac{1}{2}$	- -	- - -	3,718 2	6,242 4 10		
24	Cullymunthay Moottah	156 5 $\frac{1}{2}$	179 15 7	- -	- -	- - -	156 5 $\frac{1}{2}$	179 15 7		
25	Rettyembody Moottah -	84 13 $\frac{1}{4}$	39 4 -	- -	- -	- - -	84 13 $\frac{1}{4}$	39 4 -		
	TOTAL - - -	38,179 11	50,455 7 7	622 3 $\frac{1}{2}$	64 6 $\frac{3}{4}$	50 - 3	38,866 5 $\frac{1}{2}$	50,505 7 10		
	GRAND TOTAL - -	60,229 14	89,361 11 1	2,857 0 $\frac{1}{4}$	458 7 $\frac{1}{4}$	777 8 2	63,545 5 $\frac{1}{2}$	90,139 3 3		

(E. E.)

Madura, 11 July 1850.

(signed)

R. D. Parker, Collector.

TO PROMOTE THE CULTIVATION OF COTTON IN INDIA. 91

II.
Madras.

To *W. H. Bayley, Esq.*, Secretary to the Board of Revenue, Fort St. George.

Sir,

Para. 1. WITH reference to the orders contained in Para. 13 of Extract from the Minutes of Consultation, under date the 5th December 1848, prefixed to the Board's Proceedings of 18th January 1849, I have the honour to submit a special report on the cultivation, &c. of cotton in this district for Fusly 1259.

TINNEVELLY.

2. The following is the abstract statement of the land employed for the cultivation of indigenous and foreign cotton in Fusly 1259, in comparison with the previous year Fusly 1258, from which it will be seen that there is a net increase in cultivation during the Fusly under report to the extent of chains 525 $\frac{3}{4}$, composed of a gross increase of chains 539 $\frac{3}{4}$ in country, and a gross decrease of 13 $\frac{5}{8}$ in foreign varieties. The reason of the decrease in the cultivation of foreign cotton is the temporary discontinuance of the cultivation of this product on account of Government, at the commencement of the Fusly under report. The cotton farm having been subsequently revived, and a private experimentalist, Mr. David Lee (whose name has been mentioned in the public prints) having taken up a small quantity of land for trial with American cotton, has prevented this item from totally disappearing from the account. I may here observe, that the apparent success of Mr. Lee's first enterprise is likely to lead to a considerable extension of American cotton cultivation along the coast during the present Fusly; and if the present expectation is fulfilled, it may lead to consequences of great moment to England, as well as India.

3. Reverting to the subjoined statement, it will be seen that there was a slight decrease of Rs. 16. 6. 9. in the beriz, notwithstanding the increase in extent of cultivation. This is owing to lands paying a lower rate of assessment having been occupied to a greater extent in Fusly 1259 than in the previous Fusly.

COTTON CULTIVATION for Fuslies 1258 and 1259.

VILLAGES.	FUSLY 1258.		FUSLY 1259.		INCREASE.		DECREASE.	
	Extent of Cultivation.	Teerwah.	Extent of Cultivation.	Teerwah.	Extent of Cultivation.	Teerwah.	Extent of Cultivation.	Teerwah.
1.	2.	3.	4.	5.	6.	7.	8.	9.
	<i>Chains.</i>	<i>Co.'s Rs. a. p.</i>	<i>Chains.</i>	<i>Co.'s Rs. a. p.</i>	<i>Chains.</i>	<i>Co.'s Rs. a. p.</i>	<i>Chains.</i>	<i>Co.'s Rs. a. p.</i>
In Ayen villages	24,436 $\frac{3}{4}$	76,336 13 8	24,663 $\frac{1}{4}$	75,382 11 2	227 $\frac{1}{4}$	- - -	- - -	954 2 6
In Surva Enam ditto	896 $\frac{1}{2}$	- - -	916 $\frac{1}{4}$	- - -	20 $\frac{1}{2}$	- - -	- - -	- - -
In Jodegy ditto	1,752 $\frac{1}{2}$	6,955 3 2	2,021 $\frac{3}{4}$	7,892 14 11	268 $\frac{3}{4}$	937 11 9	- - -	- - -
TOTALS	* 27,075 $\frac{3}{4}$	83,292 - 10	27,600 $\frac{1}{4}$	83,275 10 1	525 $\frac{3}{4}$	937 11 9	- - -	954 2 6
* Of which					Deduct Increase	- - -	- - -	937 11 9
Nadam Paroothy	5,169 $\frac{3}{4}$	- - -	2,924 $\frac{5}{8}$	- - -	Net Decrease	- - -	- - -	16 6 9
Coopan ditto	21,872 $\frac{5}{16}$	- - -	24,657 $\frac{9}{16}$	- - -				
Foreign cotton	33 $\frac{1}{4}$	- - -	19 $\frac{3}{4}$	- - -				

4. The cotton crop turned out well in the Fusly under review, and the exports of this article during the year exceeded those of the preceding one by 997 candies, as shown in the margin*; but the prices of cotton, which in Fusly 1258 were 50 to 51 rupees per candy at the seaports of this district, ranged, during Fusly 1259, from 45 to 70 rupees, owing to a greater demand for the article.

	Cs.
* Fusly 1258	- 21,522
" 1259	- 22,519
Increase	- 997

5. The ryots were all advised, at the time of their assembling for the distribution of puttahs, of the advantages that would result from attending to careful culture, picking and cleaning of cotton.

6. A statement, in the form which accompanied your letter of the 25th July last, is herewith forwarded.

Tinnevelly,
22 November 1850.

(signed) *C. J. Bird,*
Acting Collector.

STATEMENT showing the Total Extent of Land Cultivated with Cotton in the District of Tinnevely, in Fusly 1259.

Numbers.	2.	CIRCAR LAND.			SURVA ENAMS.		ENAMS PAYING QUIT-RENT.			T O T A L.		
		Chains.	Acres.	Assessment.	Chains.	Acres.	Chains.	Acres.	Quit Rent Assessment.	Chains.	Acres.	Assessment and Quit Rent.
1.		3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
COLLECTOR'S DIVISION :												
1	-	789 $\frac{1}{4}$	2,687 $\frac{1}{2}$	928 12 5	22 $\frac{1}{2}$	80 $\frac{1}{4}$	345 $\frac{1}{2}$	1,255 $\frac{1}{2}$	470 9 10	1,106 $\frac{1}{2}$	4,023 $\frac{1}{2}$	C. Rs. a. p. 1,394 6 3
2	-	590 $\frac{3}{4}$	2,147 $\frac{1}{2}$	1,504 1 -	-	-	-	-	-	590 $\frac{3}{4}$	2,147 $\frac{1}{2}$	1,504 1 -
3	-	460 $\frac{3}{4}$	1,673 $\frac{1}{2}$	1,100 11 9	-	-	-	-	-	460 $\frac{3}{4}$	1,673 $\frac{1}{2}$	1,100 11 9
4	-	4,615 $\frac{1}{2}$	16,784 $\frac{1}{2}$	20,820 1 9	355 $\frac{1}{2}$	1,291 $\frac{1}{2}$	550 $\frac{1}{2}$	2,001 $\frac{1}{2}$	2,471 15 8	5,521 $\frac{1}{2}$	20,077 $\frac{1}{2}$	23,292 1 5
5	-	1,593 $\frac{1}{2}$	5,793 $\frac{1}{2}$	4,412 8 2	210 $\frac{1}{2}$	765 $\frac{1}{2}$	57 $\frac{1}{2}$	207 $\frac{1}{2}$	93 14 8	1,860 $\frac{1}{2}$	6,767 $\frac{1}{2}$	4,506 6 10
6	-	2,727 $\frac{1}{2}$	9,916 $\frac{1}{2}$	9,790 12 9	68 $\frac{1}{2}$	249 $\frac{1}{2}$	388 $\frac{1}{2}$	1,411 $\frac{1}{2}$	1,380 15 6	3,183 $\frac{1}{2}$	11,577 $\frac{1}{2}$	11,121 12 3
7	-	3,201 $\frac{1}{2}$	11,643 $\frac{1}{2}$	1,251 9 3	157 $\frac{1}{2}$	574 $\frac{1}{2}$	2 $\frac{1}{2}$	9 $\frac{1}{2}$	1 3 6	3,362 $\frac{1}{2}$	12,226 $\frac{1}{2}$	1,252 12 9
8	-	1,510 $\frac{1}{2}$	5,513 $\frac{1}{2}$	2,247 8 9	15 $\frac{1}{2}$	57 $\frac{1}{2}$	17 $\frac{1}{2}$	63 $\frac{1}{2}$	12 15 1	1,549 $\frac{1}{2}$	5,638 $\frac{1}{2}$	2,260 7 10
9	-	1,620 $\frac{1}{2}$	5,892 $\frac{1}{2}$	2,146 6 9	-	-	-	-	-	1,620 $\frac{1}{2}$	5,892 $\frac{1}{2}$	2,146 6 9
TOTAL		17,064 $\frac{1}{2}$	62,053 $\frac{1}{2}$	44,197 8 7	829 $\frac{1}{2}$	3,017 $\frac{1}{2}$	1,360 $\frac{1}{2}$	4,948 $\frac{1}{2}$	4,381 10 3	19,255 $\frac{1}{2}$	70,020 $\frac{1}{2}$	48,579 2 10
SUB-COLLECTOR'S DIVISION :												
10	-	286 $\frac{1}{2}$	1,041 $\frac{1}{2}$	283 2 2	-	-	-	-	-	286 $\frac{1}{2}$	1,041 $\frac{1}{2}$	283 2 2
11	-	651 $\frac{1}{2}$	2,370 $\frac{1}{2}$	1,056 6 7	-	-	-	-	-	651 $\frac{1}{2}$	2,370 $\frac{1}{2}$	1,056 6 7
12	-	4,184 $\frac{1}{2}$	15,216 $\frac{1}{2}$	19,513 5 6	86 $\frac{1}{2}$	314 $\frac{1}{2}$	73 $\frac{1}{2}$	267 $\frac{1}{2}$	299 12 4	4,344 $\frac{1}{2}$	15,797 $\frac{1}{2}$	19,813 1 10
13	-	2,476 $\frac{1}{2}$	9,004 $\frac{1}{2}$	10,332 4 4	-	-	587	2,134 $\frac{1}{2}$	3,211 8 4	3,063 $\frac{1}{2}$	11,139 $\frac{1}{2}$	13,543 12 8
TOTAL		7,598 $\frac{1}{2}$	27,633 $\frac{1}{2}$	31,185 2 7	86 $\frac{1}{2}$	314 $\frac{1}{2}$	660 $\frac{1}{2}$	2,401 $\frac{1}{2}$	3,511 4 8	8,345 $\frac{1}{2}$	30,348 $\frac{1}{2}$	34,696 7 3
GRAND TOTAL		24,663 $\frac{1}{2}$	89,686 $\frac{1}{2}$	75,382 11 2	916 $\frac{1}{2}$	3,331 $\frac{1}{2}$	2,021 $\frac{1}{2}$	7,350 $\frac{1}{2}$	7,892 14 11	27,600 $\frac{1}{2}$	1,00,369 $\frac{1}{2}$	83,275 10 1

Tinnevely, 11 July 1850.

(E. E)

(signed)

C. J. Bird,
Acting Collector.

To *W. H. Bayley*, Esq., Secretary to the Board of Revenue.

Sir,

PARA. 1. I have the honour to forward a statement of cotton cultivation in this district, in *Fusly 1259*, prepared in the form received with the Board's letter of the 25th July last.

COIMBATORE.

1849-50,

2. The extent of cotton lands in the present year amounts to $1,13,558\frac{3}{16}$ acres, assessed at *Rs.* 1,31,632. 2. 5., and bearing a demand of *Rs.* 1,21,970. 10. 9.

3. The estimated quantity of produce is 32,152 candies of seed cotton; of which about 10,540 candies were consumed by the growers; the net quantity brought to the market being 21,612. Of this, 12,550 candies of seed cotton, or $2,951\frac{1}{2}$ of wool, were exported as exhibited in the margin, * and the residue 9,062 are on stock.

4. The price paid for a candy of wool by the home merchant was 50 rupees, and that obtained by him from the exporter, was 52 rupees.

5. The diminished exports are attributed by the Bombay native merchants here, to a want of fair demand in that Presidency.

Coimbatore, 29 November 1850.

(signed) *E. B. Thomas*,
Acting Pl. Collector.

* To Bombay	-	-	-	-	-	-	-	-	-	1,320	candies.
To Madras	-	-	-	-	-	-	-	-	-	270	„
To Salem	-	-	-	-	-	-	-	-	-	749	„
To Tinnevely	-	-	-	-	-	-	-	-	-	400	„
To Madras	-	-	-	-	-	-	-	-	-	100	„
To Calicut	-	-	-	-	-	-	-	-	-	112 $\frac{1}{2}$	„
										2,951 $\frac{1}{2}$	„

STATEMENT showing the Extent of LAND Cultivated with COTTON

No.	TALOOKS.	GOVERNMENT LANDS.									
		Punjab Land, including Cowle.			Garden Land, including Cowle.			Nurja Land, including Cowle.			
		Acres.	Assessment.	Settlement.	Acres.	Assessment.	Settlement.	Acres.	Assessment.	Settlement.	
	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	
		Acres.	Rs. a. p.	Rs. a. p.	Acres.	Rs. a. p.	Rs. a. p.	Acres.	Rs. a. p.	Rs. a. p.	
1.	Coimbatore	9,556 0	11,630 2 11	11,630 2 11	608 7 ³ / ₄	1,915 8 5	1,729 15 6	-	-	-	-
2.	Suttiamungalum	1,370 1	1,447 14 3	1,429 10 8	41 3 ¹ / ₄	139 5 1	79 4 9	-	-	-	-
3.	Denoiken Cottah	406 0 ¹ / ₂	472 10 9	472 10 9	38 3 ¹ / ₂	132 11 7	132 11 7	-	-	-	-
4.	Colligal -	827 8 ¹ / ₂	947 2 5	947 2 5	-	-	-	-	-	-	-
5.	Pulachy -	7,125 2 ¹ / ₂	10,135 6 6	10,135 6 6	151 6 ¹ / ₄	668 5 2	663 - 6	36 6 ¹ / ₂	228 2 1	61 3 2	
6.	Parindoray -	12,454 13 ¹ / ₂	13,278 4 9	13,254 12 2	346 3	1,159 3 5	556 8 7	25 8 ¹ / ₂	174 4 4	39 - 7	
7.	Audioor -	351 12 ¹ / ₂	397 1 5	397 1 5	-	-	-	-	-	-	-
8.	Errode -	5,610 15	5,664 4 11	5,661 14 11	93 13	325 6 11	197 1 3	-	-	-	-
9.	Dharapoorum -	2,001 6 ¹ / ₄	1,966 3 -	1,966 3 -	46 2 ¹ / ₂	186 3 10	186 3 10	45 1	259 15 4	51 11 8	
10.	Kanghiem -	14,828 2 ¹ / ₂	9,117 11 7	9,117 11 7	-	-	-	-	-	-	-
11.	Caroor -	2,269 10 ³ / ₄	1,608 3 8	1,608 3 8	11 6 ¹ / ₂	42 6 7	42 6 7	-	-	-	-
12.	Cheyoor -	3,435 1 ³ / ₄	3,699 10 -	3,673 8 -	207 10 ³ / ₄	644 8 8	377 3 5	117 3	872 3 11	164 10 4	
13.	Pulludum -	29,679 13	34,813 8 7	34,806 8 9	716 12 ¹ / ₂	3,305 4 1	2,655 6 2	76 15	480 - 11	150 1 8	
14.	Chuckruggherry -	12,707 11 ¹ / ₂	16,884 11 2	16,884 11 2	526 15 ³ / ₄	2,479 3 9	2,337 12 11	40 6 ¹ / ₂	162 7 1	162 7 1	
15.	Neilgherry -	-	-	-	-	-	-	-	-	-	-
TOTAL -		1,02,624 2 ³ / ₄	1,12,062 15 11	1,11,985 11 11	2,788 5	10,998 3 6	8,957 11 1	341 8 ¹ / ₂	2,177 1 8	629 2 6	

No.	Talooks.	SURVA ENAM LANDS.								
		Nujah.			Total.			Punjah.		
		Acres.	Assessment.	Settlement.	Acres.	Assessment.	Settlement.	Acres.	Assessment.	Settlement.
	1.	20.	21.	22.	23.	24.	25.	26.	27.	28.
		Acres.	Rs. a. p.	Rs. a. p.	Acres.	Rs. a. p.	Rs. a. p.	Acres.	Rs. a. p.	Rs. a. p.
1.	Coimbatore -	-	-	-	373 15 ³ / ₄	469 12 1	-	-	-	-
2.	Suttiamungalum	-	-	-	126 14 ¹ / ₂	152 12 -	-	9 12	12 2 8	3 12 3
3.	Denoiken Cottah	-	-	-	-	-	-	-	-	-
4.	Colligal -	-	-	-	-	-	-	-	-	-
5.	Pulachy -	-	-	-	169 6 ¹ / ₄	225 6 5	-	-	-	-
6.	Parindoray -	-	-	-	101 9	107 5 4	-	9 1	7 4 -	2 9 9
7.	Audioor -	-	-	-	-	-	-	-	-	-
8.	Errode -	-	-	-	100 4 ³ / ₄	103 7 8	-	37 13 ³ / ₄	40 1 6	9 11 10
9.	Dharapoorum -	-	-	-	13 6	19 11 1	-	6 14 ¹ / ₂	6 - 7	- 10 1
10.	Kanghiem -	-	-	-	3,705 7 ¹ / ₂	2,276 14 2	-	1,969 9	1,189 3 5	313 4 9
11.	Caroor -	-	-	-	-	-	-	-	-	-
12.	Cheyoor -	-	-	-	93 6	120 4 5	-	28 1 ³ / ₄	22 8 3	3 8 3
13.	Pulludum -	-	-	-	553 10	848 2 9	-	138 12 ¹ / ₂	193 1 5	34 12 11
14.	Chuckruggherry -	2 10 ¹ / ₂	13 3 6	-	351 2 ³ / ₄	500 13 4	-	-	-	-
15.	Neilgherry -	-	-	-	-	-	-	-	-	-
TOTAL -		2 10 ¹ / ₂	13 3 6	-	5,589 2 ¹ / ₂	4,824 9 3	-	2,200 0 ¹ / ₂	1,470 5 10	368 5 10

Coimbatore, }
11 July 1850. }

in the District of Coimbatore, for Fusly 1259.

GOVERNMENT LANDS.

Total.			Punjab.			Garden.		
Acres.	Assessment.	Settlement.	Acres.	Assessment.	Settlement.	Acres.	Assessment.	Settlement.
11.	12.	13.	14.	15.	16.	17.	18.	19.
Acres.	Rs. a. p.	Rs. a. p.	Acres.	Rs. a. p.	Rs. a. p.	Acres.	Rs. a. p.	Rs. a. p.
10,164 7 $\frac{3}{4}$	13,545 11 4	13,360 2 5	362 13 $\frac{3}{4}$	433 7 6	- - -	11 2	36 4 7	—
1,411 4 $\frac{1}{4}$	1,587 3 4	1,508 15 5	125 1 $\frac{1}{4}$	146 7 9	- - -	1 13 $\frac{1}{4}$	6 4 3	—
444 4	605 6 4	605 6 4	—	—	—	—	—	—
827 8 $\frac{1}{2}$	947 2 5	947 2 5	—	—	—	—	—	—
7,312 15 $\frac{1}{2}$	11,031 13 9	10,859 10 2	165 9 $\frac{1}{2}$	208 8 2	- - -	3 13	16 14 3	—
12,826 9	14,611 12 6	13,850 5 4	101 9	107 5 4	—	—	—	—
351 12 $\frac{1}{2}$	397 1 5	397 1 5	—	—	—	—	—	—
5,704 12	5,989 11 10	5,859 - 2	100 4 $\frac{1}{2}$	103 7 8	—	—	—	—
2,092 9 $\frac{3}{4}$	2,412 6 2	2,204 2 6	13 6	19 11 1	—	—	—	—
14,828 2 $\frac{1}{4}$	9,117 11 7	9,117 11 7	3,705 7 $\frac{1}{2}$	2,276 14 2	—	—	—	—
2,281 1 $\frac{1}{4}$	1,650 10 3	1,650 10 3	—	—	—	—	—	—
3,759 15 $\frac{1}{2}$	5,216 6 7	4,215 5 9	89 5	105 4 8	- - -	4 1	14 15 9	—
30,473 8 $\frac{1}{2}$	38,598 13 7	37,612 - 7	545 8 $\frac{1}{2}$	796 14 1	- - -	8 13 $\frac{3}{4}$	51 4 8	—
13,275 1 $\frac{1}{2}$	19,526 6 -	19,384 15 2	348 8 $\frac{1}{2}$	487 9 10	—	—	—	—
—	—	—	—	—	—	—	—	—
1,05,754 0	1,25,238 5 1	1,21,572 9 6	5,557 9 $\frac{1}{2}$	4,685 10 3	- - -	28 15	125 11 6	—

ENAM LANDS PAYING QUITRENTS.

Garden.			Nunjah.			Total.			TOTAL.		
Acres.	Assessment.	Settlement.	Acres.	Assessment.	Settlement.	Acres.	Assessment.	Settlement.	Acres.	Assessment.	Settlement.
29.	30.	31.	32.	33.	34.	35.	36.	37.	38.	39.	40.
Acres.	Rs. a. p.	Rs. a. p.	Acres.	Rs. a. p.	Rs. a. p.	Acres.	Rs. a. p.	Rs. a. p.	Acres.	Rs. a. p.	Rs. a. p.
9 11 $\frac{1}{4}$	40 1 11	15 - 5	—	- - -	- - -	9 11 $\frac{1}{4}$	40 1 11	15 - 5	10,548 2 $\frac{3}{4}$	14,055 9 4	13,375 2 10
—	—	—	—	—	—	9 12	12 2 8	3 12 3	1,547 14 $\frac{3}{4}$	1,752 2 -	1,512 11 8
—	—	—	—	—	—	—	—	—	444 4	605 6 4	605 6 4
—	—	—	—	—	—	—	—	—	827 8 $\frac{1}{2}$	947 2 5	947 2 5
—	—	—	—	—	—	—	—	—	7,482 5 $\frac{3}{4}$	11,257 4 2	10,859 10 2
—	—	—	—	—	—	9 1	7 4 -	2 9 9	12,937 3	14,726 5 10	13,852 15 1
—	—	—	—	—	—	—	—	—	351 12 $\frac{1}{2}$	397 1 5	397 1 5
—	—	—	—	—	—	37 13 $\frac{3}{4}$	40 1 6	9 11 10	5,842 14 $\frac{1}{2}$	6,133 5 -	5,868 12 -
—	—	—	—	—	—	6 14 $\frac{3}{4}$	6 - 7	- 10 1	2,112 14 $\frac{1}{2}$	2,438 1 10	2,204 12 7
—	—	—	—	—	—	1,969 9	1,189 3 5	313 4 9	20,503 2 $\frac{3}{4}$	12,583 13 2	9,431 - 4
—	—	—	—	—	—	—	—	—	2,281 1 $\frac{1}{4}$	1,650 10 3	1,650 10 3
—	—	—	5 4 $\frac{1}{2}$	58 12 4	14 11 -	33 6 $\frac{1}{2}$	81 4 7	18 3 3	3,886 12	5,417 15 7	4,233 9 -
—	—	—	—	—	—	138 12 $\frac{1}{4}$	193 1 5	34 12 11	31,165 14 $\frac{1}{2}$	39,640 1 9	37,646 13 6
—	—	—	—	—	—	—	—	—	13,626 4 $\frac{1}{4}$	20,027 3 4	19,384 15 2
—	—	—	—	—	—	—	—	—	—	—	—
9 11 $\frac{1}{4}$	40 1 11	15 - 5	5 4 $\frac{1}{2}$	58 12 4	14 11 -	2,215 0 $\frac{1}{4}$	1,569 4 1	398 1 3	1,13,558 3	1,31,632 2 5	1,21,970 10 9

(E. E.)

(signed) E. B. Thomas,
Acting P^l Collector.

II.
Madras.

(No. 634.)

Para. 1. It appears from the reports received with the above letter that 7,22,911 acres, bearing an assessment of 7,37,602 rupees, have been cultivated with cotton in Fusly 1259, in the seven chief cotton-growing districts of the Madras Presidency.* The land occupied was of the following descriptions:

	Extent in Acres.	Assessment.
Government land bearing assessment - - - -	5,58,448	7,02,824
Surva enam, or rent-free lands - - - -	94,062	—
Enam lands, paying a quit rent - - - -	70,400	34,778
TOTAL - - -	7,22,910	7,37,602

2. The cultivation of Fusly 1259 fell short of that of the preceding year in 77,176 acres, which occurred in all but the two districts of Tinnevely and Coimbatore. The falling off in Bellary was to the extent of 47,825 acres, and in Kurnool 19,711. In the three other districts the decrease was less considerable. This result is ascribed to the heavy rains of August, September, and October having proved prejudicial "to an enlarged occupation of land for the purposes of this species of cultivation."

3. The trial of American seed, it is stated, is still made to a very limited extent.

Fort St. George,
28 June 1851.

(signed) T. Pycroft,
Secretary to Government.

REVENUE Letter from the Government of Fort St. George, dated 6 May 1853.
(No. 21.)

WE have the honour to forward, for the information of your Honourable Court, copy of a communication from the Board of Revenue, submitting the reports of the collectors of the cotton-growing districts under this Presidency on the cultivation of cotton during Fusly 1260, and beg leave to refer your Honourable Court to our proceedings of the date noted in the margin for the observations and orders we have recorded on the subject.

2. Your Honourable Court will observe, from the papers now submitted, that the land rent can exercise but an inconsiderable influence on the price of American cotton, and consequently in checking its production, it being less, on the average, than one rupee the acre, and the average produce per acre being 250 lbs.†

EXTRACT Fort St. George Revenue Diary to Cons., 29th April 1853.

2d March.—Received the following letter:—

(No. 84.)

No. 40.

From W. H. Bayley, Esq., Secretary to the Board of Revenue, to Sir H. C. Montgomery, Bart., Chief Secretary to Government.

Sir,

Para. 1. I AM directed by the Board of Revenue to submit, for the information of the Right honourable the Governor in Council, the accompanying annual reports ‡ on the subject

* Guntoor, Bellary, Cuddapah, Kurnool, Madura, Tinnevely, and Coimbatore.

† Extract Minutes of Consultation, 27th April 1853, para. 2, from Collector of Coimbatore to Board of Revenue, 7th October 1851, para. 3.

‡ From Guntoor, 15 January, in Cons., 5 February 1852. From Guntoor, 13th January, in Cons., 23 February 1852. From Bellary, 15 December 1851, in Cons., 12 January 1852. From Cuddapah, 14 April, in Cons., 6 May 1852. From Cuddapah, 13th April, in Cons., 20 May 1852. From Kurnool, 23 September, in Cons., 11 October 1852. From Kurnool, 29 November, in Cons., 20 December 1852. From Kurnool, 26 January, in Cons., 24 February 1853. From Madura, 8th, in Cons., 15 December 1851. From Tinnevely, 17th, in Cons., 27 November 1851. From Coimbatore, 7th, in Cons., 23 October 1851. From Nellore, 9th, in Cons., 15 November 1852. From Canara, 13 March, in Cons., 19 April 1852.

subject of the cultivation of cotton in certain districts of this presidency, during the fusly 1260, and on the extent to which the adulteration of that article is practised in those provinces.

2. A general view of the quantity of land cultivated, and of the assessment thereon, is exhibited in the annexed statement :

DISTRICT.	CIRCAR LAND.		SURVA ENAM.	ENAMS PAYING QUIT- RENT.		TOTAL.	
	Extent.	Assessment.	Extent.	Extent.	Assessment.	Extent.	Assessment.
	<i>Acres.</i>	<i>Rs.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Rs.</i>	<i>Acres.</i>	<i>Rs.</i>
Guntoor - -	50,358	74,978	8,210	29,958	13,991	88,526	88,969
Bellary - -	1,40,075	1,87,043	71,780	29,674	10,621	2,41,529	1,97,664
Cuddapah - -	55,345	80,400	26,810	9,254	4,663	91,409	85,063
Kurnool - -	69,531	86,843	14,368	31,969	9,790	1,15,868	96,633
Madura - -	70,692	1,06,731	3,501	494	772	74,687	1,07,503
Tinnevely - -	1,07,637	95,384	3,022	7,068	8,460	1,17,727	1,03,844
Coimbatore - -	1,15,911	1,42,864	5,413	2,483	1,861	1,23,807	1,44,725
Nellore - -	6,077	8,995	351	946	1,501	7,374	10,496
TOTAL - -	6,15,626	7,83,238	1,33,455	1,11,846	51,659	8,60,927	8,34,897

3. It will thus be observed that the entire extent of land cultivated with cotton during the year under report was 8,60,927 acres (including enams), yielding an assessment of 8,34,897 rupees. This result exceeds the out-turn of the preceding season by not less than 1,38,018 acres in extent of land, and 1,46,539 rupees in regard to assessment, and is attributed to the season having been favourable for the cultivation of cotton, and to enhanced prices prevailing in the market, and creating a demand for the same.

4. A comparative view of the extent of cultivation in the different districts in fusly 1260, and in the year preceding, is exhibited in the following abstract statement:—

DISTRICT.	FUSLY 1259.		FUSLY 1260.		INCREASE.		DECREASE.	
	Extent.	Assessment.	Extent.	Assessment.	Extent.	Assessment.	Extent.	Assessment.
	<i>Acres.</i>	<i>Rs.</i>	<i>Acres.</i>	<i>Rs.</i>	<i>Acres.</i>	<i>Rs.</i>	<i>Acres.</i>	<i>Rs.</i>
Guntoor - - -	73,984	75,792	88,526	88,969	14,542	13,177	—	—
Bellary - - -	2,22,432	1,78,752	2,41,529	1,97,664	19,097	18,912	—	—
Cuddapah - - -	82,365	70,623	91,409	85,063	9,044	14,440	—	—
Kurnool - - -	66,656	62,970	1,15,868	96,633	49,212	33,663	—	—
Madura - - -	63,545	90,139	74,687	1,07,503	11,142	17,364	—	—
Tinnevely - - -	1,00,369	83,275	1,17,727	1,03,844	17,358	20,569	—	—
Coimbatore - - -	1,13,558	1,26,807	1,23,807	1,44,725	10,249	17,918	—	—
TOTAL - -	7,22,909	6,88,358	8,53,553	8,24,401	1,30,644	1,36,043	—	—

5. The greatest increase has occurred in the district of Kurnool, where 49,212 acres of land were cultivated with cotton in Fusly 1260 more than in the year preceding.

6. The collector of Bellary, in para. 5 of his letter, details the experiments made with two saw gins obtained from Dharwar by a cotton merchant, in the Hoovinuddagully Talook, the result of which trial has been very satisfactory. Each gin was worked by four men from morning to night, and cleaned during that time 12 maunds of seed cotton, yielding a produce of four maunds; and as the hire of the four coolies amounted to 12 rupees per mensem, the cost of cleaning the 12 maunds amounted to about six and a half annas, while by the common gin the collector states it would have been one rupee, thus effecting a saving of 59½ per cent., besides giving a better cleaned article. Although, in estimating the amount of saving, it is necessary to take into consideration the cost of the machine employed, yet it appears to the Board that the extended use of saw gins in cleaning cotton would be attended with great advantages. The effect reported above, is, perhaps, not the maximum

II.
Madras.

that can be obtained, as it will be seen by a reference to the work cited in the margin,* that with the aid of a saw gin, a man in America is enabled to separate three cwts. in a day, or about four times the quantity reported in Mr. Pelly's letter. Two carpenters for the repair of the gins were sanctioned for six months, in Extract Minutes Consultation, 6th January 1852.

7. The trial of American seed is still made to a very limited extent, owing to the hesitation of the ryots to undertake its cultivation; the only districts in which it has been tried are Tinnevely, Coimbatore, Bellary, and Cuddapah.

8. In Tinnevely the seed has been tried both on the coast by Mr. Lees, and in the Government farm of Sevacaussey by Mr. Cuxton, and the experiments, as far as they have gone, show that the soil and air of the coast are far more favourable to its growth than those of the interior. The two and a half acres cultivated by Mr. Lees yielded a produce of 824 lbs., or about 329 lbs. per acre, while the 18 $\frac{1}{2}$ cultivated by Mr. Cuxton produced 2,918 $\frac{3}{4}$ lbs., or about 158 lbs. per acre.

9. The collector of Cuddapah reports the experiments made in his district in dry garden and wet land, the result of which, in each instance, has been unsatisfactory; but the seed sown was the produce of the district, and the crops appear to have been exposed to many local and natural causes of deterioration. The experiments instituted by him in his own garden appear to have been highly successful, showing that, with care and attention, the American species is capable of being profitably cultivated in the district, though the trial was on so limited a scale as to afford no sufficient proof of the practicable introduction of the plant as a staple product.

10. In Bellary its growth has been much encouraged; the land sown in the Hoovinhud-dagully Talook alone, this year, being 1,700 acres, while in Fusly 1259 it was but 44 acres.

11. This advance has been created by the only true incentive to cultivation, the probability of a ready market for the produce; as far as the Board can learn, soils well adapted for raising American cotton, so called, are to be found throughout the country, but that private enterprise among the trading community has not shown the ryots that advantages attend its cultivation, superior to those accompanying the produce of the indigenous kinds. An effort in the right direction has been made by the Bombay merchants, and has been responded to by the ryots of the western talooks of Bellary. There is no reason, the Board think, to suppose that the additional care and labour required by the foreign species would not be provided, if the ryot found himself proportionably remunerated.

12. In consequence of a representation from the Government of Bombay relative to the detection of systematic fraud practised in the packing of cotton in the Broach collectorate, the Board were directed in Extract Minutes Consultation, 1st April 1851 (No. 320), to make known to the collectors of the chief cotton-growing districts the above fact, and to instruct them to put parties employed in its purchase on their guard against such malpractices, and point out to the ryots the injurious effect which such frauds must have upon the demand for their produce. In pursuance of these instructions, the Board called upon the collectors, by a circular dated 14th April 1851, to report whether any instance of the adulteration of cotton for the purpose of fraudulent deterioration had come to their knowledge, and to communicate the observations of Government to the parties interested in its purchase.

13. From the replies received from those officers which are herewith submitted, it will appear that in Guntoor, Bellary, and Nellore, no instance of adulteration has been detected; in Cuddapah specific cases have not come to notice, but the collector suspects its existence, and observes, that similar frauds have been brought to light in the case of the more valuable article of indigo. In Coimbatore and Kurnool, the practice of mixing good and bad cotton is known, but is attributed to carelessness in the former district, and in the latter, to a ready sale which it commands for the manufacture of the cloths in common use by the population. In Tinnevely, the practice did not prevail to so great an extent as in the preceding one, owing, it is stated, to the proclamation issued under the orders of the Board, and to the criminal prosecution of a party detected in the attempt. In Madura, deteriorated cotton is commonly sold, with the knowledge of the merchants, because, as the collector remarks, "The short-sighted persons (referring to the exporters) who purchase it will not increase their price in proportion to the purity of the article purchased;" and, so long as this is the case, the Board are of opinion that a change cannot be expected.

14. A report from the Collector † of Canara on the subject of the adulteration of the cotton exported from the port of Coompta, the measures proposed by him for its repression, and the orders of the Board thereon, are also submitted herewith for the information of Government. It will be seen that the Collector proposed to have the cotton brought to the port for shipment examined, and, if found of decidedly improper quality, detained; also to report

* Waterston's Cyclop. of Commerce, art. "Cotton."

† From Collector, 13 March, in Cons., 19 April 1852. Pro. Collector, 19 April 1852.

In Cons. 14 April
1851.

Circular, 14 April
1851.

report to the Bombay authorities the shipment of cotton of doubtful quality, which might render the parties amenable to the penalties of the Cotton Adulteration Act in force at that presidency. The Board doubted the competency of that officer to hinder the shipment of any cotton, but approved of his reporting the shipments of adulterated kinds to Bombay, and they have no doubt that, if the penalty provided by law be enforced in one or two instances, it will act as a check against the repetition of similar frauds. Should an extension of the Bombay Act to Canara be at any time thought desirable, no present need of it being apparent to the Board, Mr. Maltby has been requested to address them on the subject.

(signed) W. H. Bayley,
Secretary.

Revenue Board Office, Fort St. George,
28 February 1853.

To W. H. Bayley, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

Para: 1. I HAVE the honour to forward a statement in the form received with your letter (GUNTOOR.

	Acres.	c.
Fusly 1259 - - - - -	73,984	10
„ 1260 - - - - -	88,526	19
	14,542	9

of the 25th July 1850, showing the extent of cotton cultivation in this district in Fusly 1260, compared with the previous year. It will be seen that there was an increase of 14,542 acres 9 coontoos of land under this description of cultivation in the past fusly above that

immediately preceding.

2. The heavy and continued falls of rain during the cultivating and growing season in the year under remark were not favourable for the cotton crop. The plants in many parts shot up too rapidly, and did not, in consequence, throw out so plentiful a supply of pods as under more favourable circumstances. The total out-turn is roughly estimated at 17,890 candies 13 t. 5 m., averaging about 4½ t. per acre; a result but slightly more favourable than in the previous year, when the yield was estimated at 4¼ t. per acre. The increase in the price is the main cause of a large extent of land having been brought under cotton cultivation.

3. It appears from the frontier duty accounts that 19 candies of dressed, equivalent to 76 candies of rough cotton, were exported into the Hyderabad country.

4. The quantity said to have been exported to other districts is shown in the statement given below. A considerable portion is stated to have been taken to the northern districts. The very bad state of the high road through the Palnaud was mentioned in Mr. Stokes' report for Fusly 1259, as the probable reason for so small a quantity of cotton having been exported by that route into the Nizam's country.

TALOOKS.	Rough Cotton. 2.	Dressed Cotton. 3.	Equivalent in Rough Cotton. 4.	TOTAL of Columns 2 and 4.
	Cand. t. m.	Cand. t. m.	Cand. t. m.	Cand. t. m.
Coorapaud - - - -	609 3 12	- - -	- - -	609 3 12
Nursarowpet - - -	- - -	10 0 0	40 0 0	40 0 0
Innacondah - - -	- - -	105 15 0	423 0 0	423 0 0
Condaveed - - -	13 15 0	15 0 0	60 0 0	73 15 0
Guntoor - - - -	56 19 0	2 5 0	9 0 0	65 19 0
	679 17 12	133 0 0	532 0 0	1,211 17 12
Palnaud - - - -	69 19 0	1,500 0 0	6,000 0 0	6,069 19 0
TOTAL - - -	749 16 12	1,633 0 0	6,532 0 0	7,281 16 12

5. There was no cotton exported by sea, and the result of previous attempts to induce the ryots to introduce the American seed were so discouraging that no further endeavours to that end were made in the year under report.

Guntoor District,
Collector's Office, Innacondah,
15 January 1852.

(signed) A. Purvis,
Acting Collector.

H.
Madras.

No. 1.

STATEMENT showing the Total Extent of LAND Cultivated with Corron in the District of Guntoor in Fuslies 1259 and 1260.

No.	TALOOK.	FUSLY 1259.						FUSLY 1260.					
		Cirkar Land.		Surva Enams.		Enams Paying Quitrent.		TOTAL.		Cirkar Land.		Surva Enams.	
		Acres.	Assessment.	Acres.	Assessment.	Acres.	Quitrent Assessment.	Acres.	Assessment.	Acres.	Quitrent Assessment.	Acres.	Assessment.
1	Pruttipaud	150 17	259 9 -	15 11	5 11 5	24 7	189 35	265 4 5	323 15 11	36 5	16 30	330 - 3	330 - 3
2	Mungalagberry	1,831 26	4,107 3 8	590 22	133 12 10	368 24	2,790 32	4,241 - 6	2,976 3 -	579 12	239 10	3,099 8 3	3,099 8 3
3	Baupetah	-	-	-	-	-	-	-	-	-	-	-	-
4	Ponnoor	10 8	16 5 3	-	-	-	10 8	16 5 3	14 - -	-	-	14 - -	14 - -
5	Martoor	617 39	579 5 3	395 13	40 15 10	165 3	1,778 15	620 5 1	1,149 1 1	299 33	129 28	1,644 17	1,177 11 5
6	Repully	-	-	-	-	-	-	-	-	-	-	-	-
7	Tenally	10 17	22 3 6	-	-	-	10 17	22 3 6	-	-	-	-	-
8	Guntoor	1,816 32	3,456 8 4	738 19	105 2 6	270 14	2,825 25	3,561 10 10	3,652 5 5	827 8	248 13	3,739 11 4	3,739 11 4
9	Coorpaud	8,464 4	13,976 10 1	1,631 16	297 13 5	1,120 31	11,216 11	14,274 7 6	14,870 4 1	1,959 4	1,006 22	15,175 5 1	15,175 5 1
10	Condaaved	4,004 30	7,487 7 5	1,082 12	474 9 1	1,094 1	6,181 3	7,962 - 6	8,630 14 1	1,676 18	1,169 20	9,231 14 5	9,231 14 5
11	Nursarampett	4,435 10	6,099 13 -	1,617 9	466 14 6	1,314 27	7,367 6	6,566 11 6	6,765 13 9	1,567 24	1,343 36	7,172 - 3	7,172 - 3
12	Innacondah	2,337 13	2,391 14 11	899 31	86 8 -	387 9	3,624 13	2,478 6 11	2,440 3 -	1,086 37	482 5	2,567 12 3	2,567 12 3
13	Datchapully	8,321 35	12,327 8 6	173 35	5,004 14 5	9,744 30	18,240 20	17,332 6 11	15,534 14 9	154 4	13,170 12	22,428 - 3	22,428 - 3
14	Timmercottah	10,753 29	14,028 4 9	90 5	4,423 8 2	9,505 31	20,349 25	18,451 12 11	18,620 8 1	24 -	12,151 15	24,033 3 11	24,033 3 11
TOTAL		42,754 20	64,752 13 8	7,234 13	11,039 14 2	23,995 17	73,984 10	75,792 11 10	74,978 3 2	8,210 25	29,957 31	88,969 3 5	88,969 3 5

Guntoor District, Collector's Office, Innacondah, }
 15 January 1852.
 (signed) A. Purris, Acting Collector.

To *W. H. Bayley, Esq.*, Secretary to the Board of Revenue, Fort St. George.

Sir,

I HAVE the honour to acknowledge the receipt of an extract from the proceedings of the Board of Revenue, under date the 5th instant, and in apologising for having omitted in my report on the cultivation of cotton in this district, for the past fusly, to notice the Board's circular of the 14th April last, beg to state that, on the receipt of the latter communication, measures were adopted for ascertaining whether any such practice as that animadverted upon was followed by the cotton growers in this district, and care was taken to point out to the ryots the injurious effects likely to arise to themselves from such frauds, and to put purchasers on their guard against them if they existed. These orders have lately been reiterated, but no instance of the adulteration of cotton has been brought to my notice, nor have I reason to believe from the inquiries I have made that the practice obtains in this part of the country.

(signed) *A. Purvis*, Acting Collector.

Guntoor District, Collector's Office,
Datchapully, 13 February 1852.

To *W. H. Bayley, Esq.*, Secretary to the Board of Revenue, Fort St. George.

Sir,

Para. 1. WITH reference to para. 13 of the extract from the Minutes of Consultation of the 5th December 1848, accompanied by the Board's proceedings under date the 18th January 1849, I have the honour to report upon the extent of the lands cultivated with cotton in this district for fusly 1260.

BELLARY.

2. I have herewith transmitted for the Board's consideration a talookwar statement, marked No. 1, of the country cotton cultivated in this district in Fusly 1260, prepared according to the form which accompanied the Board's letter, dated the 25th July 1850. A brief statement is also hereunder given of the cotton cultivated in this district during Fusly 1260, and the two preceding fuslies:—

CLASS.	Acres of Land cultivated in Fusly 1258.	Acres of Land cultivated in Fusly 1259.	Acres of Land cultivated in Fusly 1260.	Comparison of Fusly 1259 and 1260.	
				Increase.	Decrease.
Circular land - - -	1,65,094	1,35,086	1,40,075	4,989	—
Enam land - - -	1,05,163	87,346	1,01,454	14,108	—
TOTAL - - -	2,70,257	2,22,432	2,41,529	19,097	—

The season was favourable for the cultivation of cotton, and good prices prevailed, to which causes the increase is attributable.

3. The ryots have been cautioned to gather the cotton clean, and the orders of the Board, contained in their circular letter, dated the 14th April 1851, have been made generally known; but no particular instance has come to my notice that the cotton of this district, when packed for sale, is frequently adulterated, *i. e.*, mixed with that of an inferior quality, or with raw seeded cotton, for the purpose of fraudulent deterioration; but parties employed in the purchase of cotton in this district have been put on their guard against such malpractices. The injurious effects which such frauds must have upon the demand for their produce have been pointed out to the ryots, and I have personally impressed this on the ryots of this (Hoovinhudgully) talook from whence I now write.

4. The following memorandum shows the number of saw gins received from Dhurwar and Coimbatore, and how they have been disposed of:—

TOTAL RECEIVED.

	2. Dharwar Gins.			3. Coimbatore Gins.			4. TOTAL.	
	Number.	Price for each.	Value.	Number.	Price for each.	Value.	Number.	Value.
First invoice - - - - -	3	40	120	6	25	150	9	270
Second ditto - - - - -	4	50	200	-	-	-	4	200
Third ditto - - - - -	5	50	250	-	-	-	5	250
TOTAL - - - - -	12	-	570	6	25	150	18	720

EXPENDITURE.

Distributed to the Ryots of this District:								
To Johrapoor Narrainreddy, in Gollum Talook - - - - -	1	40	40	-	-	-	1	40
To Toombullibidoo Khairpilluppuh, in Adonie - - - - -	1	40	40	-	-	-	1	40
To Mr. Abraham, at Bellary - - - - -	1	40	40	-	-	-	1	40
To Malgaynoor Jumbuna, in Adonie - - - - -	1	50	50	-	-	-	1	50
To Soobiah - - - - - ditto - - - - -	-	-	-	1	25	25	1	25
To Kastnoor Reddies, in Tarpatty - - - - -	1	50	50	-	-	-	1	50
To Conacondla Jyanah Gooty - - - - -	1	50	50	-	-	-	1	50
To Gooty Talook - - - - -	-	-	-	1	25	25	1	25
To Govind Vadimjee, and others, in Raidroog Talook - - - - -	-	-	-	1	25	25	1	25
TOTAL - - - - -	6	-	270	3	25	75	9	345
Transmitted to other Districts:								
To Coimbatore Superintendent of Cotton - - - - -	1	50	50	-	-	-	1	50
TOTAL Expenditure - - - - -	7	-	320	3	25	75	10	395
Remaining - - - - -	5	50	250	3	25	75	8	325

5. The people being unacquainted with the use of the gins, and not understanding how to remedy any defect, no benefit arose last year from the use of them generally. To remedy this evil, I requested, in my letter to you of the 18th October 1851, that sanction of Government might be obtained for the employment of some experienced carpenters to be present while the gins were at work. I have not yet received the Board's orders on this request, but, as there is no time to be lost, I have applied to the collector of Dharwar to send me a suitable person for the ensuing season. It is of the utmost importance to the success of these machines that there should not be a failure again this year. In the talook of Hoovinhdgully, I have just seen a cotton merchant who procured two of these gins himself from Dharwar, and has had them in use, and a person from Dharwar has occasionally been down, and rendered any assistance that was necessary. This merchant, Cooroovulapah, of Holaloo, informs me that he works each gin from morning to night with four men, and that each would clean 12 maunds of seed cotton, and give four maunds of cleaned cotton daily. He paid his men three rupees each per month, so that the cost of producing four maunds of clean cotton would be six annas. By the common gin the cost would for the same quantity be one rupee, making a saving of $37\frac{1}{2}$ per cent., besides producing the cotton better cleaned. With such evident advantages, the only thing to be done is to prevent failure from accidents, and so to convince the ryots of the benefit to be derived from the use of the Dharwar gin.

6. I beg also to send a statement, marked No. 2, showing the extent of land sown with the American cotton seed, with its produce for Fusly 1260. The following is an abstract thereof:—

CLASS.	CULTIVATED LAND.			SEED SOWN.		PRODUCE.			Average
	Acres.	Assess- ment.	Net Collec- tion.	Maunds.	Seers.	Total Produce of Maunds.	Deduct Seed Maunds.	Remain- ing clean Cotton Maunds.	Produce
									for each Acre.
	2.	3.	4.	5.	6.	7.	8.	9.	10.
Dry Land:									Seer.
Black Soil - - -	164½	257 3	189 8	79	10	610 16½	424 26	185 38½	177
Mussub ditto - - -	1½	- 13	- 10	0½	6	36 4½	27 3	91 1½	904
Red ditto - - -	0½	- 2	- 2	0½	6	0 8	0 6	0 2	16
TOTAL - - -	166½	258 2	190 4	79¾	10	646 29	451 35	194 42	186
Bagayet Land - - -	—	—	—	—	—	—	—	—	—
TOTAL - - -	166½	258 2	190 4	79¾	10	646 17	451 35	194 42	186
Particulars:									
Circar Land - - -	164 38	256 15	—	79	10	644 29	450 11	194 18	186
Enam ditto - - -	1 22	1 3	—	0¾	—	2 0	1 24	0 24	64

7. The cotton produce of the Fusly 1259, I had brought to the Hoozoor from the several talooks, where it had been used, and cleaned it with the Dharwar gins; the cotton was sold, and the ryots who raised it received the proceeds. The seed I again sent to the talooks, where it was sown by the ryots in Fusly 1260. Endeavours are made for the improvement of the cultivation of this cotton, but the ryots generally do not seem to appreciate it. It does not produce, in the ordinary black lands, a better return than the indigenous kind common to the district; however, I perceive a disposition on the part of the ryots in the western talooks (from which I am now writing) to cultivate it more extensively, but this I attribute to the demand now made for the American cotton by the Bombay merchants, whose agents, it seems, are making advances to the ryots to procure this cotton. If this continues, there is no doubt but that the success will be greater, unless it should eventually turn out that the situation of the district is decidedly unfavourable to the plant.

8. In the Hoovinhudgully Talook alone, where I have just finished the Jummabundy of the present Fusly 1261, there have been sown no less than 1,700 acres; last year there were only 44 acres (*see* Statement); the crops are pretty good. This talook borders on the Dharwar country. It is my intention to confine my endeavours more particularly to the western talooks, and as success becomes more evident there, the plant will no doubt be cultivated elsewhere.

(signed) C. Pelly,
Collector.

Bellary, Collector's Office,
in Circuit, at Hoovinhudgully, 15 December 1851.

No. 1.—STATEMENT showing the Total Extent of LAND Cultivated with COTTON, in the District of *Bellary*, for Fusly 1260, prepared agreeably to the Form annexed to the Board's Letter of 25 July 1850.

Division.	TALOOKS.	CIRCAR LAND.		ENAM LAND.			TOTAL.		
		—	—	Surva Enam.	Jody Enam.		Total of Arrears in Columns 5 and 6.	Acres in Columns 3 and 8.	Assessment in Columns 4 and 7.
		Acres.	Assessment.	Acres.	Acres.	Quit Rent.			
		2.	3.	4.	5.	6.	7.	8.	9.
Collector -	No.								
	1. Bellary -	14,283	19,320	4,408	8,255	1,521	12,663	26,046	20,841
	2. Kumpy -	1,830	1,112	382	344	124	726	2,556	1,236
	3. Hurponhully -	8,275	7,271	684	1,149	914	1,833	10,108	8,188
	4. Koodlighee -	903	843	707	46	35	753	1,656	878
	5. Hoovinbudgaly	12,477	15,481	1,467	3,007	2,567	4,474	16,951	18,048
	6. Adonie -	15,309	28,877	8,667	1,577	730	10,244	25,553	21,607
	7. Goollem -	32,451	61,229	27,157	8,285	2,917	35,442	67,893	64,146
	8. Punchapollem	8,216	12,717	7,909	908	440	8,817	17,033	13,157
	9. Gooty -	11,723	14,560	9,874	2,038	402	11,906	23,629	14,962
	10. Yadakee -	7,221	7,268	3,822	1,824	340	5,646	12,867	7,608
	11. Raidroog -	4,327	6,128	1,139	1,647	493	2,786	7,113	6,621
	12. Tandputry -	12,376	17,721	4,851	510	126	5,361	17,737	17,847
	TOTAL -	1,29,391	1,84,527	71,067	29,584	10,612	1,00,651	2,30,042	1,95,139
Sub-Collector	1. Anuntapoor -	2,587	986	470	50	5	520	3,107	991
	2. Pengondah -	7,194	1,134	202	40	4	242	7,436	1,138
	3. Codecondah -	464	234	1	-	-	1	465	234
	4. Madugserah -	192	100	6	-	-	6	195	100
	5. Churmaverum	247	62	34	-	-	3	281	62
	TOTAL -	10,684	2,516	713	90	9	803	11,487	2,525
GRAND TOTAL -		1,40,075	1,87,043	71,780	29,674	10,621	1,01,454	2,41,529	1,97,664

(E. E.)

Bellary District,
Collector's Office, on Circuit Hoovinbudgully,
15 December 1851.

(signed) C. Pelly, Collector.

II.
Madras.

To *W. H. Bayley, Esq.*, Secretary to the Board of Revenue, Fort St. George.

Sir,

CUDDAPAH.

Para. 1. IN reporting upon the cultivation of New Orleans cotton, in Fusly 1260 (1850-51,) I regret that I have nothing satisfactory to state.

2. The experiment was tried in 40 villages of six talooks, and was proportioned on the different descriptions of lands as follows:

	Number of Villages.	Ryots.	Land.	Assessment.	Seed Sown.	Produce.
			<i>As. c. a.</i>	<i>Rs. a. p.</i>	<i>Tolas.</i>	<i>Tolas.</i>
Dry - - -	28	38	7 27 9	16 7 4	1,958	2,396
Garden - - -	10	10	1 19 9	12 15 5	217	118
Wet - - -	2	2	0 2 0	- 4 8	24	80
TOTAL - - -	40	50	9 9 2	29 11 5	2,199	2,594

3. In the dry land the seed was sown in July, August, and September, and in no instance was more than a quarter of a full crop produced. Some of the plants were withered for want of water; some, being in low and heavy ground, were destroyed by too much rain, and many were attacked by a blight. The blight appears to have been most destructive in the black soil talooks, and excess of moisture in Goorunkondah and Muddenpully.

4. In the garden lands but little more success was attained; and in one village only was half a full crop gathered by the ryot. Blight and heavy rain destroyed the plants in other villages, and in some the whole crop was carried away in the severe storm in the month of May. The best return, in proportion to the quantity of land cultivated, was on a piece of wet land in Poolevaindlah, where 80 tolas weight of cotton was gathered as the produce of 24 tolas weight of seed. The crop was in a healthy state, and likely to have yielded more; but in May the channel from which the irrigation was derived burst its banks, and the whole crop was washed entirely away.

5. The seed sown on all the lands was the produce of this province, and no fresh seed appears to have been sent from the stock remaining in the collector's cutcherry. I have lately received a notice from Dr. Wight that a large supply of American cotton seed is expected shortly at Madras, and have been requested to indent for any quantity that may be required by the people of Cuddapah. I am making inquiries upon the subject; but the experiments hitherto made here have not resulted in a manner to give the ryots confidence in the greater profit to be derived from the cultivation of American in preference to Indian cotton.

6. My own little experience in the matter leads me to believe that, at all events, until it is fully acclimatised, the American cotton is a tender plant, and requires constant attention. Wherever it has been cultivated with great care, the success has been proportionately great; but the result of small patches of garden cultivation affords no good argument from which to draw conclusions regarding the success that would attend the cultivation on a large scale, with such care and attention only as the ryots would have time and inclination to bestow.

7. Some plants which I raised in my own garden gave a return that was truly astonishing; and, on sending the cotton to the Chamber of Commerce, I was informed by its chairman that it was considered the finest ever seen at Madras, and such as would realise 6½*d.* a pound in English, and a similar specimen which was sent to Dr. Wight elicited similar remarks. At the time this was raised I sent some seed to Hyderabad, and heard that the return, under similar careful culture, was not inferior; and I am informed that the same experiments tried in other parts of the country met with the same success.

8. There is nothing, therefore, in the soil or the climate of India hostile to the American plant; but it has flourished chiefly when the art of horticulture has been brought to bear upon it. Whether this same care would be for ever necessary, or whether, as is more probable, the plant would gradually suit itself to the country, and be content with the attention bestowed on other agricultural produce, is a question for botanists to decide; but it appears to me that the successful general introduction of the plant is more likely to be attained by distributing

distributing seed produced at the farms in Coimbatore than by continually procuring fresh seed from America, and thus giving up all prospect of accustoming the plant to the country.

H.
Madras.

(signed) H. Forbes,
Cuddapah District Collector's Circuit Cutcherry, Collector.
Muddenpully, 14 April 1852.

To W. H. Bayley, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

WITH reference to the Board's circular letter of the 14th of April 1851, regarding the practice which obtains, in some parts of the country, of adulterating the cotton by packing with it inferior descriptions, or that which is raw and unseeded, I have the honour to report that although I am not able to adduce any specific instance as having come to my own knowledge, the inquiries I have made lead me to believe that the practice is not unknown in Cuddapah; and frauds of a similar nature have certainly been attempted and detected in the more valuable article of indigo. The ryots have had pointed out to them the injurious effects which must result to their own interests from the continuance of the practice; and I shall be careful from time to time to impress the question on their memory.

(signed) H. Forbes,
Cuddapah District Collector's Office on Circuit, Collector.
Muddepully, 13 May 1852.

To W. H. Bayley, Esq., Secretary to the Board of Revenue, Fort St. George.

18 January 1849.
25 July 1850.

Sir,

Para. 1. WITH reference to the circular of the Board of Revenue, noted in the margin, I have the honour to report upon the cultivation of cotton in the Kurnool District for Fusly 1260.

KURNOOL.

2. The accounts received from the talooks show that 1,15,868 acres were cultivated with cotton in Fusly 1260, being 49,212 acres in excess of the extent cultivated in the previous year, and also in excess by 29,500 acres of the extent planted in Fusly 1248.

Fusly.	Acres.
1258	- 86,368
1259	- 66,656
1260	- 1,15,868

3. The following shows the extent of Circar and enam land, respectively cultivated with cotton crops only, or with a mixed crop of cotton and other produce :

	ACRES.
Circar land cultivated with cotton - - - - -	37,923
Ditto - - ditto mixed cotton and other produce - - -	31,608
	69,531
Enam land cultivated with cotton only - - - - -	27,347
Ditto - - ditto with a mixed crop of cotton and other produce	18,990
	1,15,868

4. The increase in the extent of cultivation of this article in this year is ascribed to the favourable prospects of the season at the period when the sowing operations commenced, and to the high prices at which the article was at that time selling, owing to the deficient supply of the previous year.

5. The produce of the year appears on the whole to have been good, and the prices obtained were considerably higher than in any of the five previous years.*

6. Mr.

* FUSLIES.	Rate per Maund.
	Rs. a. p.
1255 - - - - -	1 14 2
1256 - - - - -	1 12 -
1257 - - - - -	1 12 9
1258 - - - - -	2 2 9
1259 - - - - -	1 13 10½
Average - - - - -	1 14 3¼
1260 - - - - -	2 8 11

11.
Madras.

6. Mr. Lushington in his last report referred to the preference given by the cultivators to raising cotton in the regur or black soil, and the returns show that of the total 1,15,868* acres cultivated with cotton in this year, the larger portion was raised on that description of land.

7. No Mexican cotton seed was received in the district in this year, nor was any cotton raised from American seed. The latter circumstance may partly be accounted for, in consequence of the small extent† of land planted with the American seed in the previous year, and the scanty produce obtained therefrom, owing to the unfavourable nature of that season; but it is very evident that the ryots of this district take no interest in furthering the extension of the cultivation of the foreign plant.

(signed) T. Conway,
Kurnool, Government Agent's Office,
23 September 1852. Agent to the Governor.

To W. H. Bayley, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

Para. 1. WITH reference to your letter of the 11th October 1852, I have the honour to state that it does not appear that the cotton of the district bought up by foreign parties is adulterated by the ryots for the purpose of fraudulent deterioration; but the practice prevails of mixing cotton of different qualities, as there is a local demand for it for the manufacture of the cloths in common use in the district.

2. Parties employed in purchasing cotton are well aware of this circumstance, and in making their purchases they do not fail to ascertain the quality of the article offered to them.

(signed) T. Conway,
Kurnool, Government Agent's Office,
29 November 1852. Agent to the Governor.

To W. H. Bayley, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

I HAVE the honour to forward the statement of cotton cultivation for Fusly 1260, called for in your letter of the 17th instant.

Kurnool District,
Government Agent's Office, on Circuit Sirwell,
26 January 1853. (signed) T. B. A. Conway,
Agent to the Governor.

STATEMENT showing the Total Extent of LAND Cultivated with COTTON in the District of Kurnool, for Fusly 1260.

NAMES OF TALOOKS.	CIRKAR LAND.		SURVA ENAMS.	ENAMS PAYING QUIT- RENT.		TOTAL.	
	Acres.	Assessment.	Acres.	Acres.	Quitrent	Acres.	Assessment and Quitrent.
					Assessment.		
		Rs. a. p.			Rs. a. p.		Rs. a. p.
Chagulmurry -	13,171 6 11½	19,911 7 -	2,658 34 0½	6,355 19 11½	2,427 3 2	22,185 20 7½	22,338 10 2
Sirwell -	19,452 38 4½	25,104 8 1	4,544 2 7½	9,144 35 1	3,494 3 11	33,141 35 12½	28,598 12 -
Nundial -	19,515 7 6½	12,914 12 5	4,387 3 11½	2,898 19 14	1,197 13 -	17,800 30 15½	14,112 9 5
Panniem -	5,439 7 10	8,538 7 10	284 36 11½	5,335 17 13½	1,247 12 5	11,059 22 2½	9,786 4 3
Dhone -	7,586 20 11½	6,498 13 8	441 26 4½	2,212 24 13½	302 6 7	10,240 31 13½	6,801 4 3
Goodoor -	7,868 8 4½	8,114 14 1	1,920 5 0½	2,852 7 1½	366 3 11	12,640 20 6½	8,481 2 -
Nundicootoor -	4,224 7 2½	4,732 5 6	61 10 12½	2,868 27 2	682 3 5	7,154 5 0½	5,414 8 11
Atchoor -	1,273 33 8½	1,027 11 11	69 25 0	301 20 15½	72 - 4	1,644 39 7½	1,099 12 3
TOTAL - - -	69,531 9 10½	86,843 - 6	14,367 24 0½	31,969 12 8½	9,789 14 9	115,868 6 4	96,632 15 3

(E. E.) per

Kurnool District, Government Agent's Office,
on Circuit Sirwell, 26 January 1853.

(signed) T. B. A. Conway,
Agent to the Governor.

* Regur - - - - - 73,396 Acres.
Masub - - - - - 32,545 "
Red soil - - - - - 9,600 "
Garden and wet land - - - - - 27 "

1,15,868 Acres.

To *W. H. Bayley, Esq.*, Secretary to the Board of Revenue, Fort St. George.

Sir,

MADURA.

Para. 1. UNDER circular order, dated 18th January 1849, I have the honour to furnish my report and statement relative to the cultivation of cotton in Fusly 1260.

2. The season was somewhat less favourable for cotton than other products, as it is a late crop, and there was no rain in December. It was better, however, than that of Fusly 1259, and an increase will be observed of 11,142 acres 3a. in the extent cultivated.

3. The yield was generally good, both as to quality and quantity.*

4. According to the reports furnished to me, the prices in Ramnad, which contains more than one-half the cotton of the district, ranged from 5 to 11½ rupees per pody or bale (lbs. 337½) of seed cotton, according to quality and time of year, and from seven to ten rupees in Teroomungalum, the chief cotton-growing ayn talook.

5. The demand does not appear to have been so great as in Fusly 1259, as some portion of the crop is stated to remain in the hands of the merchants.

6. Having heard a favourable report of the success of an experiment made in Tinnevely of sowing American cotton in land near the sea shore, nearly useless for other purposes, I have procured a quantity of seed from Doctor Wight, and forwarded it to the zemindar, with directions relative to the cultivation.

7. With reference to the Board's circular of the 14th April last, I beg to add that I have frequently warned the merchants of the bad effect in price of their cotton not being well cleaned, to which the answer has been, "We sell by the weight, and why should we decrease it by removing dirt and rubbish?" In fact, not being the persons who sell to the actual exporters, they are not made directly sensible of the loss occasioned by this want of care; nor does it perhaps tell on them indirectly, because the short-sighted persons who purchase from them will not increase their price in proportion to the purity of the article furnished.

Madura,
8 December 1851.

(signed) *R. D. Parker,*
Collector.

STATEMENT showing the Total Extent of LAND Cultivated with COTTON in the Districts of Madura and Dindigul, for Fusly 1260.

No.	TALOOKS, &c.	CIRCAR LAND.		SURVA ENAMS.	ENAMS PAYING QUITRENT.		TOTAL.	
		Extent of Land.	Assessment.	Extent of Land.	ent of Land.	Assessment.	Extent in Acres at 152½ Acres per Cawny.	Assessment.
		3.	4.	5.	6.	7.	8.	9.
1.	2.	3.	4.	5.	6.	7.	8.	9.
		<i>Acres. as.</i>	<i>Rs. a. p.</i>	<i>Acres. as.</i>	<i>Acres. as.</i>	<i>Rs. a. p.</i>	<i>Acres. as.</i>	<i>Rs. a. p.</i>
1	Madacolum - -	- -	- - -	- -	161 6	354 8 1	161 6	354 8 1
2	Theroomungalum -	21,292 15½	41,401 1 5	2,974 10½	326 14½	409 15 1	24,591 8	41,811 - 6
3	Meyloor - - -	- -	- -	- -	- -	- -	- -	- -
4	Ramagherry - -	542 7½	774 2 11	- -	- -	- -	542 7½	774 2 11
		21,835 6½	42,175 4 4	2,974 10½	488 4½	764 7 2	25,298 5½	42,939 11 6
5	Tandicomboo - -	678 12½	691 8 4	- -	- -	- -	678 12½	691 8 4
6	Jyempoolly - -	2,837 15½	4,428 - 11	- -	- -	- -	2,837 15½	4,428 - 11
7	Tenkurray - -	1,547 11	1,760 11 3	38 7½	- -	- -	1,586 2½	1,760 11 3
8	Nellacotay - -	1,204 3½	1,252 4 8	- -	- -	- -	1,204 3½	1,252 4 8
		6,264 10½	8,132 9 2	38 7½	- -	- -	6,307 2½	8,132 9 2
	TOTAL - - -	28,104 1½	50,307 13 6	3,013 2½	488 4½	764 7 2	31,605 7½	51,072 4 8
(continued)								

* One pody seed cotton, 337½ lbs.; three pody seed affords one pody clean cotton, which is 243½ lbs.

STATEMENT showing the Total Extent of Land Cultivated with Cotton in the Districts of Madura and Dindigul, for Fusly 1260--continued.

No.	TALOOKS, &c.	CIRCAR LAND.		SURVA ENAM.	ENAMS PAYING QUITRENT.			TOTAL.	
		Extent of Land.	Assessment.	Extent of Land.	Extent of Land.	Assessment.	Extent in Acres at 152½ Acres per Cawny.	Assessment.	
1.	2.	3.	4.	5.	6.	7.	8.	9.	
		<i>Acres. as.</i>	<i>Rs. a. p.</i>	<i>Acres as.</i>	<i>Acres as.</i>	<i>Rs. a. p.</i>	<i>Acres as.</i>	<i>Rs. a. p.</i>	
1	Ramnad zemindary -	26,052 6½	34,562 3 10	77 6	-	-	26,129 6½	34,562 3 10	
2	Shevagungah ditto -	3,285 0	3,725 3 6	15 6	6 1½	- 7 -	3,306 7½	3,732 10 6	
3	Siroopalay -	-	-	-	-	-	-	-	
4	Poolungolam -	469 2¼	694 14 11	80 4	-	-	549 6¼	694 14 11	
5	Jettulnaiknoor -	21 15¾	39 1 4	-	-	-	21 15¾	39 1 4	
6	Thodapanaiknoor -	18 12¼	18 15 5	-	-	-	18 12¼	18 15 5	
7	Ooddapanaiknoor -	255 7½	329 7 2	10 6½	-	-	265 13¾	329 7 2	
8	Keelacotay -	61 14¾	122 8 -	18 12	-	-	80 10¾	122 8 -	
9	Nadoocotay -	117 14¾	162 7 -	35 0¾	-	-	152 15	162 7 -	
10	Mailacotay -	111 5½	177 3 3	39 2½	-	-	150 8	177 3 3	
11	Velliagoondum -	-	-	-	-	-	-	-	
12	Ayacoody -	4,144 14	4,748 10 7	52 1¼	-	-	4,196 15¼	4,748 10 7	
13	Mombaray -	36 10¾	43 6 10	-	-	-	36 10¾	43 6 10	
14	Edracotay -	160 14	100 - 2	-	-	-	160 14	100 - 2	
15	Bodynaiknoor -	82 11¾	81 14 -	-	-	-	82 11¾	81 14 -	
16	Thavarum -	-	-	-	-	-	-	-	
17	Yerachakanaiknoor -	-	-	-	-	-	-	-	
18	Guntamanaiknoor -	662 13¾	826 5 5	6 12¼	-	-	669 10	826 5 5	
19	Cunnywady -	2,226 5	3,113 5 10	26 4½	-	-	2,252 9¾	3,115 5 10	
20	Amianaiknoor -	217 12½	315 11 6	-	-	-	217 12½	315 11 6	
21	Cadoor -	97 12½	112 2 10	5 7	-	-	103 3½	112 2 10	
22	Maroongapoory -	637 9¼	731 - 2	83 3½	-	-	720 12¾	731 - 2	
23	Volor Mottah -	3,685 9½	6,300 3 1	35 5½	-	-	3,720 15	6,300 3 1	
24	Cullymunthay Do -	168 15¾	181 7 6	2 14¾	-	-	171 14½	181 7 6	
25	Rettiombody -	72 0	37 3 1	-	-	-	72 0	37 3 1	
	TOTAL -	42,587 9	56,423 7 5	488 6½	6 1¼	7 7 -	43,032 3¼	56,430 14 5	
	GRAND TOTAL -	70,691 10¼	106,731 4 11	3,501 8¼	494 5½	771 14 2	74,687 8½	107,503 3 1	

Madura, }
11 July 1851. }

(E. E.) per

(signed) R. D. Parker, Collector.

To W. H. Bayley, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

PARA. 1. With reference to the orders contained in para. 13 of extract from the Minutes of Consultation, under date the 5th December 1848, prefixed to the Board's Proceedings of 18th January 1849, I have the honour to submit a special report on the cultivation, &c., of cotton in this district for Fusly 1260.

2. Annexed is an abstract statement showing the extent of land employed for the cultivation of indigenous and foreign cotton in Fusly 1260, in comparison with the preceding year Fusly 1259. On referring to which it will be seen that there is a net increase in the cultivation during the Fusly under report to the extent of chains 17,358¾, composed of a gross increase of chains 17,061 in country, and of chains 297 in foreign varieties. The increase in the cultivation of country cotton is attributable to the steady demand for exportation from Tutacurin to China, and in small quantities to England; also the increase in the foreign varieties is the result of the experiments undertaken on the coast of this district by Mr.

TO PROMOTE THE CULTIVATION OF COTTON IN INDIA 111

Mr. Lees with a view to proving the capability of India to produce profitably cotton fit for the use of English manufacture.

II.
Madras.

COTTON CULTIVATION for Fusly 1260.

1.	FUSLY 1259.		FUSLY 1260.		INCREASE.		DECREASE.	
	Extent of Cultivation.	Teerwah.	Extent of Cultivation.	Teerwah.	Extent of Cultivation.	Teerwah.	Extent of Cultivation.	Teerwah.
	2.	3.	4.	5.	6.	7.	8.	9.
	Acres.	Rs. a. p.	Acres.	Rs. a. p.	Acres.	Rs. a. p.	Acres.	Rs. a. p.
In Ayen Villages - -	89,686 $\frac{3}{4}$	75,382 11 2	107,637 $\frac{1}{2}$	95,384 1 3	17,950 $\frac{1}{4}$	20,001 6 1	-	-
In Sarva Enam ditto - -	3,331 $\frac{3}{4}$	- - -	3,021 $\frac{7}{8}$	- - -	- - -	- - -	310 $\frac{5}{8}$	-
In Jodegy ditto - -	7,350 $\frac{3}{4}$	7,892 14 11	7,068 $\frac{3}{4}$	8,460 8 2	- - -	567 9 3	281 $\frac{4}{8}$	-
Of which - -	100,369 $\frac{5}{8}$	83,275 10 1	117,727 $\frac{3}{4}$	103,844 9 5	17,950 $\frac{1}{4}$	20,568 15 4	591 $\frac{3}{4}$	-
Nadan Parootthy - -	10,633 $\frac{5}{8}$	- - -	19,281 $\frac{1}{16}$	- - -	Deduct decrease - - -	- - -	591 $\frac{3}{4}$	-
Cooppan ditto - -	89,665 $\frac{3}{4}$	- - -	98,078 $\frac{1}{2}$	- - -	Net increase - - -	- - -	17,358 $\frac{1}{4}$	-
Foreign Cotton - -	70 $\frac{1}{2}$	- - -	368 $\frac{7}{8}$	- - -	- - -	- - -	- - -	- - -

3. The exports of cotton during the past year exceeded those of the preceding one by candies 1,215, as shown in the margin, but the prices of cotton which in Fusly 1259, were 45 to 70 rupees per candy, ranged during Fusly 1260, from 50 to 75, the competition for the article having been more spirited.

Fusly 1259	22,519
" 1260	23,734
Increase	1,215

4. From the information received from the merchants at Tutacurin, it appears that the cotton brought to market has been of good quality during the year under review, and adulterations were not practised to nearly as great an extent as during the preceding year. This good result is, I believe, the effect of a proclamation which was published in accordance with the order of the Board of Revenue, dated 14th April last, and of a prosecution which was instituted in the criminal court last year against a party who was detected attempting to sell to a merchant at Tutacurin bags of cotton mixed with rubbish.

5. In order to form some idea whether the soil and climate of the coast are more favourable to the production of American cotton than those of the tracts where native cotton flourishes best, I requested Mr. Lees to favour me with information regarding the produce he has gathered from his fields, and called upon Mr. Cuxton, the superintendent of the Government farm at Sevacauey for a similar return. The Government fields were sown rather before Mr. Lees's, who did not commence operation till the beginning of 1850, yet it will be seen in the annexed statement that the out-turn hitherto on the coast has far exceeded that in the interior. The experiment, however, has not been carried on long enough to pronounce decisively whether American cotton can profitably be cultivated on a large scale on the coast, but another party from England besides Mr. Lees having now embarked in the speculation, the question will soon be thoroughly put to the proof.

Names of Gentlemen by whom and of the Villages where the American Cotton Cultivation is carried on.	Particulars of Land.	Extent of Cultivation.		Produce thereof.	Average Quantity of Produce per Acre.	REMARKS.	
		Acre.	Sq. Ft.	lbs.	lbs.		
Mr. Cuxton, Sevacauey, in Sattoor Talook.	2 Nunjah gardens -	4	5,760	1,360	329 $\frac{3}{4}$	The land occupied with this cultivation is black soil situated near Sevacauey.	
	4 Poonjah fields -	13	23,720	1,007 $\frac{1}{4}$	74 $\frac{1}{2}$		
	1 Old garden -	-	35,937 $\frac{1}{2}$	551 $\frac{1}{2}$	685		
	Total - -	18	21,857 $\frac{1}{2}$	2,918 $\frac{3}{4}$	157 $\frac{3}{4}$		
Mr. Lees, Trichendoor, in Punjamal Talook.	6 Gardens - -	-	4,356	140	1,400	Sown 20th January 1850. Sown in January 1851. Sown 18th November 1850. This cultivation appears to have been made on sandy soil along the sea coast.	
	No. 1 - -	2	-	424	212		
	Ditto - -	-	21,780	260	520		
		2	26,136	824	318 $\frac{1}{4}$		

6. A statement in the form which accompanied the Board's circular of the 25th July 1850, is herewith forwarded.

Tinnevely, 17th November 1851.

(signed) C. J. Bird, Collector.

STATEMENT showing the Total Extent of LAND cultivated with Cotton in the District of *Tinnevely*, for Fusly 1260.

No.	T A L O O K S.	CIRCULAR LAND.			SURVA ENAMS.			ENAMS PAYING QUIT-RENT.			T O T A L.		
		Chains.	Acres.	Assessment.	Chains.	Acres.		Chains.	Acres.	Quit-Rent or Assessment.	Chains.	Acres.	Assessment and Quit-Rent.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	
				<i>Co.'s Rs. a. p.</i>					<i>Co.'s Rs. a. p.</i>			<i>Co.'s Rs. a. p.</i>	
1	Nelliambalum -	748 $\frac{3}{16}$	2,720 $\frac{3}{4}$	1,191 11 7	11 $\frac{7}{16}$	40 $\frac{1}{2}$	103 $\frac{7}{16}$	374 $\frac{1}{4}$	171 15 9	862 $\frac{1}{2}$	3,136 $\frac{7}{16}$	1,363 11 4	
2	Vedogramum -	938 $\frac{1}{2}$	3,412 $\frac{5}{16}$	2,262 14 7	-	-	201 $\frac{1}{16}$	732	762 3 1	1,139 $\frac{3}{16}$	4,144 $\frac{5}{16}$	3,025 1 8	
3	Tencausey -	381 $\frac{1}{4}$	1,386 $\frac{1}{2}$	907 2 3	-	-	-	-	-	381 $\frac{1}{4}$	1,386 $\frac{1}{2}$	907 2 3	
4	Sauttoor -	5,907 $\frac{3}{4}$	21,483 $\frac{1}{4}$	26,385 14 8	402 $\frac{1}{16}$	1,464 $\frac{1}{2}$	548 $\frac{3}{16}$	1,992 $\frac{1}{4}$	2,586 3 4	6,858 $\frac{9}{16}$	24,940 $\frac{1}{8}$	28,972 2 -	
5	Streevygoontum -	1,790 $\frac{1}{16}$	6,511 $\frac{3}{4}$	5,018 12 2	135	490 $\frac{3}{4}$	31 $\frac{1}{16}$	1,126 $\frac{1}{4}$	59 7 9	1,956 $\frac{3}{4}$	7,115 $\frac{3}{8}$	5,078 3 11	
6	Ottapedarum -	3,491 $\frac{1}{2}$	12,696 $\frac{1}{4}$	12,337 4 10	95 $\frac{3}{8}$	346 $\frac{1}{4}$	431 $\frac{1}{4}$	1,568 $\frac{1}{2}$	1,353 14 2	4,018 $\frac{7}{16}$	14,611 $\frac{1}{4}$	13,691 3 -	
7	Punchama -	3,249 $\frac{1}{2}$	11,818 $\frac{3}{4}$	1,947 2 4	-	-	-	-	-	3,249 $\frac{1}{2}$	11,818 $\frac{3}{4}$	1,947 2 4	
8	Nangoonary -	1,744 $\frac{3}{4}$	6,344 $\frac{1}{2}$	2,657 14 11	18 $\frac{1}{4}$	66 $\frac{3}{4}$	4 $\frac{3}{8}$	15 $\frac{3}{4}$	3 4 10	1,767 $\frac{1}{2}$	6,426 $\frac{5}{16}$	2,661 3 9	
9	Vullyoor -	1,528 $\frac{1}{4}$	5,557 $\frac{1}{8}$	2,093 9 8	5	18 $\frac{3}{16}$	-	-	-	1,533 $\frac{1}{4}$	5,575 $\frac{5}{16}$	2,093 9 8	
	TOTAL	19,780 $\frac{3}{4}$	71,931 $\frac{3}{4}$	54,802 7 -	667 $\frac{1}{2}$	2,427 $\frac{1}{4}$	1,319 $\frac{7}{16}$	4,797 $\frac{1}{4}$	4,987 - 11	21,767 $\frac{3}{4}$	79,156 $\frac{7}{16}$	59,739 7 11	
10	Sherunadavy -	299 $\frac{9}{16}$	1,088 $\frac{5}{16}$	296 11 9	-	-	-	-	-	299 $\frac{9}{16}$	1,088 $\frac{5}{16}$	296 11 9	
11	Brenadasem -	765 $\frac{3}{4}$	2,783 $\frac{3}{4}$	1,183 - 4	-	-	-	-	-	765 $\frac{3}{4}$	2,783 $\frac{3}{4}$	1,183 - 4	
12	Streevellypootoor -	5,683	20,665 $\frac{3}{4}$	26,650 14 10	76 $\frac{3}{16}$	277 $\frac{3}{4}$	43 $\frac{5}{16}$	156 $\frac{1}{2}$	238 11 7	5,802 $\frac{1}{4}$	21,099 $\frac{1}{16}$	26,889 10 5	
13	Sankaramarcovil -	3,070 $\frac{1}{2}$	11,167 $\frac{1}{2}$	12,450 15 4	87 $\frac{5}{16}$	317 $\frac{1}{2}$	581 $\frac{1}{2}$	2,114 $\frac{3}{4}$	3,284 11 8	3,739 $\frac{3}{2}$	13,599 $\frac{3}{4}$	15,735 11 -	
	TOTAL	9,818 $\frac{1}{4}$	35,705 $\frac{3}{4}$	40,581 10 3	162 $\frac{1}{2}$	594 $\frac{3}{4}$	624 $\frac{3}{4}$	2,271 $\frac{3}{4}$	3,523 7 3	10,606 $\frac{3}{2}$	38,571 $\frac{1}{2}$	44,105 1 6	
	Grand Total	29,599 $\frac{1}{2}$	107,637 $\frac{1}{2}$	95,384 1 3	831	3,021 $\frac{1}{2}$	1,943 $\frac{3}{4}$	7,068 $\frac{1}{4}$	8,460 8 2	32,374 $\frac{1}{2}$	117,727 $\frac{1}{4}$	108,844 9 5	

(E. E.)

(signed) C. J. Bird,
Collector.{
Tinnevely,
11 July 1861.}

To *W. H. Bayley*, Esq., Secretary to the Board of Revenue, Fort St. George.II.
Madras.

Sir,

Para. 1. Adverting to the circular orders of the Board of the 18th January 1849, I have the honour to forward a statement, in the prescribed form, of the cotton cultivation in this district in Fusly 1260 (1850-51). COIMBATORE.

2. The aggregate quantity of land appropriated to this description of cultivation amounts to 1,23,807 acres or 10,249 acres, above the extent of the past year, bearing an assessment of Rs. 1,49,579. 1., and a demand of Rs. 1,38,335. 11.

3. American cotton has been grown in only $181\frac{10\frac{1}{2}}{16}$ acres in two talooks, Pulachey and Coimbatore; the produce with seed did not exceed 92 candies and eight maunds, all of which were sold to Dr. Wight.

4. The other kinds of cotton amount to 40,270 candies and 18 maunds, or 8,118 candies more than the produce of 1259. Of this, 13,451 candies are estimated to have been consumed by the grower, leaving 26,819 candies available for market.

5. The average produce of American seed cotton in an acre of land is about 254 lbs., that of the other kinds 163, or about 36 per cent. less.

6. It would appear, from the memorandum in the margin,* that 2,978 $\frac{1}{2}$ candies of wool, equivalent to 12,660 candies of seed cotton, were exported in the year under review, and that the remainder 14,159 candies have either been consumed within the district, or are on stock.

7. The price of a candy of wool (country) was about the same as in 1259, Rs. 50 and 52.

8. It will be observed that the cultivation of cotton increases annually. Fuslies 1256 and 1257 only show a deficiency from bad seasons in all the other years; there has been a progressive increase.

9. I take this opportunity of stating, with reference to the Board's circular of the 14th April last, that it has not come under my notice that cotton, when packed for sale, has been adulterated with that of an inferior quality. Previous to the establishment of the gin machinery at Coimbatore, the quality of the article was not so good as it has been since it was cleaned with the native churka, and was inferior in cleanness, but the thrasher and gin now in use have conduced to remedy this defect. The growers, however, do not usually bestow much attention in gathering the produce, and, looking rather to quantity than to the quality of the article, still carelessly mix good and bad: efforts are made to prevent this evil as far as practicable.

Fuslies.	Acres.
1255	- 1,09,196
1256	- 79,240
1257	- 94,916
1258	- 1,11,781
1259	- 1,13,558
1260	- 1,23,807

Coimbatore, 7 October 1851.

(signed)

E. B. Thomas, Collector.

Enclosure No. 1 Statement.

To *W. H. Bayley*, Esq., Secretary to the Board of Revenue, Fort St. George.

NELLORE.

Sir,

Para. 1. In reference to the Board's circular, dated the 18th January 1849, and the further letters noted in the margin,† I have the honour to submit a statement showing the total extent of land cultivated with cotton in this district for Fusly 1260.

2. The Board will observe that this cultivation is carried on to a limited extent only in Nellore. The little cotton that is raised is generally used in the district. The western and northern dry talooks are the only places where comparatively it is grown to any considerable extent, and when the article produced there is more than sufficient for consumption in those parts, it is exported in small quantities to the adjoining northern districts.

3. The article is imported in large quantities from the western districts, and, with the exception of a very small portion reserved for home consumption, is exported to Madras, where the dealers generally find a good market.

4. The

* COTTON WOOL :										Candies.
To Bombay	-	-	-	-	-	-	-	-	-	750
Madras	-	-	-	-	-	-	-	-	-	223
Salem	-	-	-	-	-	-	-	-	-	685
Tinnevelly	-	-	-	-	-	-	-	-	-	1,176 $\frac{1}{2}$
Madura	-	-	-	-	-	-	-	-	-	35 $\frac{1}{2}$
Calicut	-	-	-	-	-	-	-	-	-	108 $\frac{1}{2}$
										2,978 $\frac{1}{2}$

† From Board, 25th July 1850; from Board, 14th April 1851; from Board, 11th October 1852.

II.
Madras.

4. The cotton produced in this district being so limited, and there being no export trade in it, there are no opportunities of observing whether the article is mixed with that of an inferior quality, or with raw-seeded cotton for the purpose of fraudulent deterioration.

5. I take this opportunity to state that the American cotton-seed lately furnished from the Presidency with instructions from Dr. Wight for trying it in the coast sandy soils, has been distributed to the sea-coast talooks; the success which may attend the experiment will be duly reported.

Nellore, Collector's Cutcherry,
9 November 1852.

(signed) D. White, Collector.

STATEMENT showing the Total Extent of LAND cultivated with COTTON in the District of Nellore, for Fusly 1260.

No.	TALOOKS.	CIRCAR LAND.		Surva Enam.	Enams paying Quit-rent, including Candregas Shrotriems.		TOTAL.	
		Acres.	Assessment.	Acres.	Acres.	Quit-rent or Assessment.	Acres.	Assessment and Quit-rent.
1.	2.	3.	4.	5.	6.	7.	8.	9.
			Rs. a. p.			Rs. a. p.		Rs. a. p.
1	Survapully - - -	—	—	—	—	—	—	—
2	Cotah - - -	—	—	—	—	—	—	—
3	Nellore - - -	—	—	—	—	—	—	—
4	Talamunchy - - -	—	—	—	—	—	—	—
5	Sungum - - -	117	174 5 7	—	5	6 8 -	122	180 13 7
6	Cavalv - - -	—	—	—	—	—	—	—
7	Toommultulpoor - -	25	45 10 9	—	—	—	25	45 10 9
8	Goondavole - - -	50	97 13 9	18	13	24 - -	81	121 13 9
9	Ravoor - - -	379	718 7 10	6	88	211 2 3	473	929 10 1
10	Calegherry - - -	277	178 4 10	—	—	—	277	178 4 10
11	Woodiagherry - - -	1,493	1,283 9 2	143	112	79 10 9	1,748	1,363 3 11
12	Sydapoor - - -	40	52 11 9	3	2	1 4 -	45	53 15 9
		2,381	2,550 15 8	170	220	322 9 -	2,771	2,873 8 8
13	Buddapoody - - -	90	148 1 2	24	82	161 14 5	196	309 15 7
14	Davagoodoor - - -	1,420	2,184 6 1	9	84	54 13 -	1,513	2,239 3 1
15	Ongole - - -	1,601	3,422 - 8	65	229	389 13 7	1,895	3,811 14 3
16	Enamanamellore - -	102	169 13 5	7	54	83 1 9	163	252 15 2
17	Chendalore - - -	483	519 11 3	76	277	489 3 -	836	1,008 14 3
		3,696	6,444 - 7	181	726	1,178 13 9	4,603	7,622 14 4
		6,077	8,995 - 3	351	946	1,501 6 9	7,374	10,496 7 -

Nellore, Collector's Cutcherry, 9 November 1852.

(signed) D. White, Collector.

CANARA.

To W. H. Bayley, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

Para. 1. I HAVE the honour to acknowledge an extract from the Proceedings of the Board of Revenue, dated 26th of February, forwarding for my information copy of the Board's letter to the collectors of the cotton-growing districts, on the repression of the practice of the adulteration of cotton, and also the Board's Proceedings of the 26th January, forwarding certain papers on the same subject, communicated by the Government of Bombay, in which special reference is made to the inferior quality of the cotton exported from Compta.

2. I am now desirous of laying before the Board the annexed petition presented to me by the merchants of Compta on a recent visit paid by me to that large trading port, and the endorsement which I gave upon it. I was gratified to find that the merchants are becoming alive

alive to the injurious effects upon their trade of the selfish frauds practised by some of their members, and that they were desirous to co-operate with the Government in checking these malpractices; and I held a long conversation with them as to the manner in which the Government could best advance their interests in this respect.

3. The result of this conversation was briefly this: I explained to them that in the present state of the law I had the power of punishing any party guilty of fraud, but that I had no power to punish for selling or for exporting cotton of inferior quality, or even cotton mixed with seed, so long as there was no fraud in the transaction. I therefore suggested that parties purchasing cotton should demand a sample of it, and if they chose, lodge this sample duly sealed in the Cutcherry, and that if it appeared that dirt or bad cotton was concealed in the bales, this would, I considered, be a punishable offence. But for this it was necessary that the party injured should seek redress, and expose the fraud. The merchants all agreed in stating that this they could not do. They declared that it would be impossible for any of them to become prosecutors, and they explained that what they wished was that the Government should interfere, and positively prohibit the export of all cotton not of good marketable quality; they asked me to do for the cotton trade what had been done for the rice trade.

4. I explained to them that there was an essential difference between the trade in rice and that in cotton. In one the offence was that of giving false measure, or that of mixing deleterious ingredients, whereas they asked me to determine what quality of cotton was fit for the market, and I asked them whether they were prepared for their trade being interrupted sufficiently to institute an examination, and for the examination being entrusted to a native official.

5. They stated that they were so, and that as soon as ever it should be known that any Government superintendence was exercised, the parties would cease to send down from the Ghâts the dirty cotton which was now forced into the market. They suggested that the police ameen should be directed to examine a certain number of the bales in each lot, and that such as was so dirty or so full of seed as to appear unfit for the market, should be submitted to a punchayet of merchants, and detained pending instructions.

6. I promised them to give their request due consideration, and I have been satisfied that individuals are in the present state of native society quite helpless, and that when a practice of this kind has become prevalent in any trade, nothing but the interference of Government can check it, and save the trade.

7. I have therefore directed that an examination of the cotton be made, and that any of decidedly improper quality be stopped, and I have explained to the parties that I have the power of reporting to Bombay the shipments of any which would render the parties liable to the heavy penalties of the new Act in operation in that presidency.

8. I have reason to hope that this measure will effect some good, and I think it will do so if it only prepares the way for more stringent measures, if these appear to be necessary.

9. The Board will see that I am far from considering that I have established an efficient control over this trade; this is not in my power, but I hope that the measure I have taken may have some effect. If farther measures should hereafter be necessary, I would beg to suggest that these may perhaps be more advantageously adopted by applying the stringent powers which the Act gives to the cotton when introduced into Bombay, than by extending its provisions to this district.

10. The letters of the Chamber of Commerce show that there are at Bombay parties who keep a watchful attention upon the interests of this trade, and the means they possess of testing the quality of the cotton when introduced there are so superior to any that we possess, or can hope for in a provincial port, that it is to their exertions that I look most hopefully for any improvement in the Compta cotton trade. If the imports into Bombay are carefully examined there, a few instances of punishment under the Act will soon have a great effect in Compta.

Collector's Cutcherry on Circuit,
Ankola, 13 March 1852.

I have, &c.
(signed) *F. N. Maltby*, Collector.

To *F. N. Maltby*, Esq., Collector of Canara.

The Petition of Bombay Merchants residing at Coompta, in the Talook of Honore.

AMONGST the ports of this district that of Coompta is one of the chief, the trade in cotton wool being carried on there to a very great extent, and as the cultivation of cotton is increasing above the Ghauts, the number of merchants who resort here for trading purposes is increasing; but the cotton traders from above the Ghauts impose on us by adulterating it. This cotton is exported by us to Bombay for re-exportation to Europe, the merchants of which place suffer great loss, from which we also are by no means free. There has been a great sensation at Bombay on account of the adulteration of cotton, and the merchants were consequently obliged to take their complaints before the Government, who, after reference

II.
Madras.

to the Governor-general, have issued orders to all the talooks belonging to that presidency to keep strict vigilance, in consequence of which all adulterated cotton brought for exportation is now confiscated, and the exporter subjected to a fine of 1,000 rupees. We think that this circumstance must be known to you. In spite of such strict supervision, however, the exporters from above the Ghauts do not unfrequently export here adulterated cotton for the sake of gain; but in the absence of any enactment to check their frauds at this place great loss is entailed on us, and the trade is thus checked. Even if we ourselves resolve not to buy such cotton, there are not wanting here people who will deal in it, and sometimes, even if we all combine in one opinion, the carriers themselves export the cotton direct to Bombay. We therefore beg to represent that, for a fair trade in cotton to be carried on here, it is requisite that you should pass an order, as that now in force against the frauds practised in rice by mixing it with water, &c., forbidding all the carriers to bring down adulterated cotton. We request that the police ameen of Coompta may be directed to inspect all the cotton bales coming from above the Ghauts, which arrangement will not only be a boon to the merchants, but also secure a good name to the Government, and influence the trade; and so we pray that this request may be complied with.

9 February 1852.

ENDORSEMENT.

I HAVE read your petition, and given attention to the statements made in it. I am glad that the merchants are fully aware of the injury which is done to their trade by the export of damaged goods, and goods fraudulently packed, and that they are desirous of co-operating with the Government to prevent fraud and the export of goods not fit for the market.

Any parties who commit fraud are punishable by the regulations; and if any parties who are injured by such frauds bring their complaints before the authorities, they will be duly inquired into.

But I find that the object of your petition is not so much to seek protection against actual fraud as to request the prohibition of exporting from Coompta cotton mixed with seed and dirt, and thus unfit for the Bombay market, the export of which injures the character of the Coompta cotton generally, and depreciates its value.

On this subject I am desirous of assisting you by every means which the law allows, and I have directed that the cotton brought for exportation be examined by the officers of Government; and if any is found to be so full of dirt and seed as to be unfit for the market, it will be returned to the owner; and any cotton exported contrary to this rule will be reported to the authorities at Bombay, and the parties will be liable to the punishment which the Act awards.

(True translation and copy.)

(signed) F. N. Maltby, Collector.

(No. 472.)

No. 41.

1. WITH the foregoing letter the Board of Revenue submit reports from the collectors of the chief cotton-growing districts, as noted in the margin,* on the cultivation of cotton during Fusly 1260, and on the extent to which the adulteration of that article is practised in those provinces.

2. The extent of land, Government and enams, under cultivation, with the assessment or quit-rent upon it, is exhibited below:

	Extent, in Acres.	Assessment.	Average per Acre.
			<i>Rs. a. p.</i>
Government land bearing full assessment -	6,15,626	7,83,238	1 4 4
Surva enam, or rent-free lands -	1,33,455		—
Enam lands paying quit-rent -	1,11,846	51,659	7 4
TOTAL Extent -	8,60,927	8,34,897	15 6

3. The entire extent of land under cotton cultivation in the districts under report during Fusly 1260, is stated to have exceeded that of the previous Fusly by acres 1,38,018, and the assessment by 1,46,539 rupees. There would, however, seem to be some inaccuracy here.

* Guntoor, Bellary, Cuddapah, Kurnool, Madura, Tinnevely, Coimbatore, Nellore.

here. The increase in seven out of the eight districts reported on is given in the abstract statement in para. 4, at 1,30,644 acres, and rupees 1,36,043, and the difference between this increase and that noted in para. 3, or acres 7,374, and rupees 10,496* tallies exactly with the quantity and assessment of land cultivated in Nellore during Fusly 1260, thus leading to the inference that there could have been no cotton cultivation in that district for the preceding year, Fusly 1259, which does not appear probable.

4. There is an increase in all the seven districts noted in para. 4, especially in Kurnool, where it was the largest, and is attributed to the favourable nature of the season, and to the enhanced prices for cotton which prevailed in the market, creating a demand for that article.

5. The result of the experiments made with two dharwar saw-gins by a merchant in Bellary is very satisfactory, and demonstrates the superiority of these machines in cleaning cotton. The Government agree with the Board that their extended use would be of much advantage. It does not appear whether any further trials have been made with these gins in Cuddapah, nor is any mention made as to the employment in any of the districts reported on, of the cottage saw-gins sent out from England by the Honourable the Court of Directors.

6. American cotton still continues to be cultivated to a very limited extent. The only districts in which it has been tried are Tinnevely, Coimbatore, Bellary, and Cuddapah. The result of the experiments reported by the collector of Tinnevely, and referred to by the Board in para. 8, go to indicate that the soil and climate of the coast are more favourable to its culture than those of the interior. There has, however, been a very large increase in the cultivation of this cotton in Bellary, which is attributed to the demand for the article created by the Bombay merchants, whose agents have been making advances to induce the ryots to undertake its cultivation. The Government quite agree with the Board that the prospect of a ready market for the produce is the only incentive which can stimulate the production of this species of cotton, and that there is no reason to doubt that the additional care and labour required to raise it would be forthcoming if the ryot found himself proportionately remunerated.

7. In the concluding paras. of their Proceedings, 12, 13, 14, the Board review the accounts given by the several collectors in respect to the fraudulent adulteration of cotton in their districts. With reference to the statement made by the collector of Madura, that in his district deteriorated cotton is commonly sold with the knowledge of the merchants, because the shortsighted persons (*i. e.* the exporters) who purchase it, will not increase their price in proportion to the purity of the article, the Board observe, that so long as this is the case a change cannot be expected. The Governor in Council fully subscribes to the justice of this opinion. The true and only effectual check to the adulteration of cotton, as of any other article, must be applied by the dealers themselves, by their steadily rejecting that which is inferior, and giving such prices as shall form a sufficient inducement to the growers to bring their cotton into the market in a pure and well-cleaned condition.

Fort St. George, 27 April 1853.

(signed) *T. Pycroft*,
Secretary to Government.

28 April.—Sent in consequence the following letter :

(No. 473.)

From *T. Pycroft*, Esq., Secretary to Government, to *H. E. Goldsmid*, Esq., Secretary to the Government of Bombay.

No. 42.

Sir,

WITH reference to your letters of the 6th February and 16th and 31st December 1851, I am directed by the Right Honourable the Governor in Council to forward the accompanying copy of a communication from the Board of Revenue and of its enclosures, together with an extract from the Minutes of Consultation of this date, relating to the cultivation of cotton in the chief cotton-growing districts of this presidency during Fusly 1260, and on the extent to which the adulteration of that article is practised in those provinces. 28 Feb. 1853, No. 84.

Fort St. George,
27 April 1853.

I have, &c.
(signed) *T. Pycroft*,
Secretary to Government.

	Acres.	Rupees.
* Increase according to para. 3	1,38,018	1,46,539
Ditto according to para. 4	1,30,644	1,36,043
	7,374	10,496

II.
Madras.

REVENUE Letter from the Government of Fort St. George, dated 3 April 1854,
No. 16.

Dated 22 Decem-
ber 1853, No. 598.

1. We have the honour to forward, for the information of your Honourable Court, copy of a communication from the Board of Revenue, submitting the reports of the collectors of the chief cotton-growing districts under this Presidency, on the cultivation of cotton during Fusly 1261, and beg leave to refer your Honourable Court to our Proceedings of the dates noted in the margin* for the observations and orders we have recorded on the subject.

EXTRACT Fort St. George Revenue Consultation of 7th December 1852.

Read the following letter :

(No. 7295 of 1852.)

No. 34.

From *A. Malet*, Esq., Chief Secretary to Government of Bombay, to Sir *H. C. Montgomery*, Bart., Chief Secretary to the Government of Fort St. George.

Sir,

I HAVE been directed by the Right Honourable the Governor in Council to transmit herewith copy of the papers, as per margin,† and to request that the Government of Fort St. George will be pleased to favour this Government with the information therein referred to as regards the extent of cotton cultivation under the Madras Presidency.

2. A form of the return furnished by the collectors under this Presidency is appended.

Bombay Castle,
10 November 1852.

I have, &c.
(signed) *A. Malet*,
Chief Secretary to Government.

(No. 72 of 1852.)

To *A. Malet*, Esq., Chief Secretary to Government, Bombay.

Sir,

REFERRING to para. 3 of Mr. Secretary Goldsmid's letter to the Chamber of Commerce, No. 80 of 1851, and dated 4th January of that year, wherein a promise was held out that Government would endeavour to ensure the preparation of statements on a uniform system for every cotton-growing district, showing the extent of land cultivated with indigenous and foreign seed cotton, the number of churkas and gins, and the prospects of the season, &c., &c., which statements Government was then pleased to say should be published in the Government Gazette, I am now directed by the Committee of the Chamber respectfully to request the renewed attention of the Right Honourable the Governor in Council to this subject. I am further desired to point out the importance, in the execution of the above-mentioned design, of including all the native states which contribute to the supply of cotton exported from Bombay, so that Government and the public may be informed, on a subject of such vast and equal interest to both, the extent of cotton cultivation throughout the country.

Should there be no statistics already collected in the other presidencies, and now available, the Committee of the Chamber suggests that those relating to this presidency and foreign states adjacent should be made public in the meantime. The statistics of cotton growing in Berar and the Nizam's dominions generally are particularly desired.

Bombay Chamber of Commerce,
25 October 1852.

I have, &c.
(signed) *John Connon*,
Secretary.

* Cons., 7th December 1852, Nos. 34 & 35; Cons., 31 January 1854, Nos. 20 to 22.

† From the Secretary to the Chamber of Commerce, No. 72, dated 25 October 1852. Paras. 1 and 2 of reply to Secretary to the Chamber of Commerce, dated 10th November 1852, No. 7294.

EXTRACT Paras. 1 and 2 from a Government Letter to the Secretary to the Chamber of Commerce, dated 10 November 1852.

(No. 7294.)

Para. 1. I HAVE been directed by the Right Honourable the Governor in Council to acknowledge the receipt of your letter, No. 72, dated the 25th ultimo, and to state, for the information of the Chamber of Commerce, that the several collectors under this Presidency* have been directed immediately to forward to Government the returns relative to the extent of cotton cultivation therein referred to for the current season.

2. Government also hope to receive, at an early date, approximate returns from the political agents, Southern Mahratta country and Kolapoor; but the results of references already made lead his Lordship in Council to apprehend that the political officers in the northern parts of the Presidency will not be able to furnish any statements.

I have, &c.
(signed) *A. Malet*,
Chief Secretary to Government.

STATEMENT showing the Extent of LAND cultivated with Indigenous and Exotic COTTON, in the ——— Collectorate, and its probable Yield in Candies of 784 lbs., for the Year ———

Zilla.	Land Planted with Cotton.			Probable Produce in Candies of 784 lbs.		
	Acres or Beeghas Exotic.	Acres or Beeghas Indigenous.	TOTAL.	Exotic.	Indigenous.	TOTAL.

(signed) *A. Malet*,
Chief Secretary to Government.

(No. 1178.)

RESOLVED, that the Board of Revenue be requested to furnish the information required by the Bombay Government in the above letter.

No. 35.

Fort St. George, 7 December 1852. (signed) *T. Pycroft,*
Secretary to Government.

EXTRACT Fort St. George Revenue Cons. of 31 January 1854.

Read the following letter :

(No. 598.)

From *W. H. Bayley*, Esq., Secretary to the Board of Revenue, to Sir *H. C. Montgomery*,
Bart., Chief Secretary to Government.

No. 20.

Sir,

22 December 1853.

I AM directed by the Board of Revenue to submit, for the information of the Right Honourable the Governor in Council, the accompanying annual reports† from the chief cotton districts of this Presidency for Fusly 1261.

2. A general

* Letters to the Collectors, dated 4th November 1852.

+ From Guntoor, 11th in Cons., 29th November 1852; from Bellary, 8th July, in Cons., 18th August 1853; from Cuddapah, 28th September, in Cons., 7th October 1852; from Kurnool, 12th in Cons., 18th August 1853; from Kurnool, 23d November, in Cons., 19th December 1853; from Madura, 1st in Cons., 7th March 1853; from Tinnevely, 20th December 1852, in Cons., 6th January 1853; from Coimbatore, 8th, in Cons., 15th November 1852; from Nellore, 19th in Cons., 21st July 1853.

II.
Madras.

2. A general view of the quantity of land cultivated, and of the assessment thereon, is exhibited in the annexed Statement:

DISTRICT.	CIRCAR LAND.			Surva Enam.	Enams paying Quit-Rent.			TOTAL.		
	Extent.		Assessment.	Extent.	Extent.		Assessment.	Extent.	Assessment.	
	Acres.	Rs.	a. p.	Acres.	Acres.	Rs.	a. p.	Acres.	Rs.	a. p.
Guntoor -	50,901	75,895	- -	10,352	25,966	12,067	- -	87,219	87,962	- -
Bellary -	1,45,152	2,11,312	- -	78,305	26,659	10,221	- -	2,50,116	2,21,533	- -
Cuddapah -	58,724	88,153	- -	28,285	8,830	3,199	- -	95,839	91,352	- -
Kurnool -	69,032	85,128	- -	9,032	36,785	13,567	- -	1,14,849	98,695	- -
Madura -	80,179	1,19,555	- -	3,956	872	1,392	- -	85,007	1,20,947	- -
Tinnevelly -	1,31,294	1,14,408	- -	2,899	5,968	7,067	- -	1,40,161	1,21,475	- -
Coimbatore -	1,21,132	1,44,999	- -	5,314	2,803	1,948	- -	1,29,249	1,46,947	- -
Nellore -	5,973	9,227	- -	442	1,332	1,981	- -	7,747	11,208	- -
TOTAL -	6,62,387	8,48,677	- -	1,38,585	1,09,215	51,442	- -	9,10,187	9,00,119	- -

3. It will thus be observed that the entire extent of land cultivated with cotton during the year under review, was 9,10,187 acres, including enams, yielding an assessment of 9,00,119 rupees. This result exceeds the outturn of the preceding Fusly by 49,260 acres in extent of land, and 65,222 rupees in regard to assessment, and is attributable to seasonable rain at the period of sowing the crops, as well as to greater demand for the article.

4. A comparative view of the extent of cultivation in the different districts, in Fusly 1261, and in the year preceding, is exhibited in the following Abstract Statement:—

DISTRICT.	Fusly 1260.		Fusly 1261.		Increase.		Decrease.	
	Extent.	Assessment.	Extent.	Assessment.	Extent.	Assessment.	Extent.	Assessment.
	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.
Guntoor -	85,526	88,969	87,219	87,962	-	-	1,307	1,007
Bellary -	2,41,529	1,97,664	2,50,116	2,21,533	8,587	23,869	-	-
Cuddapah -	91,409	85,063	95,839	91,352	4,430	6,289	-	-
Kurnool -	1,15,868	96,633	1,14,849	98,695	-	2,062	1,019	-
Madura -	74,687	1,07,503	85,007	1,20,947	10,320	13,444	-	-
Tinnevelly -	1,17,727	1,03,844	1,40,161	1,21,475	22,434	17,631	-	-
Coimbatore -	1,23,007	1,44,725	1,29,249	1,49,947	5,442	2,222	-	-
Nellore -	7,374	10,496	7,747	11,208	373	712	-	-
TOTAL -	8,60,927	8,34,897	9,10,187	9,00,119	51,586	66,229	2,326	1,007

5. An increase of cultivation, it will be observed, has occurred in all the districts except Guntoor and Kurnool. The decrease in the former district happened chiefly in the talook of Timmercottah, and is owing to the destruction of the young plants caused by the storm of 7th November 1851, and the heavy rains which accompanied it; a failure of the breeze from seaward during the growing season is also assigned as another reason for the diminished outturn. There was, however, a rise in the price of the article from Rs. 14. 13. 8. per candy of uncleaned cotton in Fusly 1260, to Rs. 15. 14. in Fusly 1261.

6. The decrease in Kurnool, which occurred chiefly in the surva enam lands, is attributed to a similar cause, and to a partial blight that happened just as the crops were coming to maturity

maturity. The prices obtained were, however, favourable, being Rs. 2. 5. 10. per maund, only a trifle lower than those of the previous year.

7. The greatest increase of cotton cultivation has occurred in the district of Tinnevely, where 22,434 acres of land were planted in the fusly under review, more than in the year preceding. Of this, 1,465 were of the American species, and 20,968 of the indigenous kinds. The packing for export has much improved, no complaints of adulteration having been this year heard.

8. The trial of American seed is still made to a limited extent, but the results are not very encouraging. In Bellary, however, the produce of the six westernmost talooks, in consequence of advances being made for the supply of the demand in Bombay, has exceeded by 705 maunds of cleaned cotton, that of fusly 1260, which was only 195 maunds.

9. In Cuddapah, the cultivation of the American species was attempted in 15 villages of four of the southern talooks, but the produce was injured by blight and heavy rain. The crops raised on a piece of land measuring 35 coontahs, having been watered by a well, yielded a good return. The experiments instituted in this district have so signally failed hitherto, that the Board do not look for much success in the collector's further experiments.

10. The supply of American seed received in Kurnool in 1851 was distributed among the principal growers, and 70 acres in different villages were sown with it, but owing to the same causes as affected the indigenous plant the crop was deficient, and to a greater degree than that reared from the ordinary seed.

11. The experiments tried by the zemindar of Ramnad on the seaside were promising at first, but subsequently failed. The collector of Madura, however, thinks that the trial was not fairly conducted, and purposes to repeat it if possible during the succeeding fusly.

12. The report from Tinnevely is almost equally unsatisfactory as regards the produce from American seed. Though the quality of the cotton was good, and fully realised the expectations that had been formed of it, the quantity produced was so scanty that no adequate return could, the collector thinks (for the two Europeans who instituted the experiment declined to furnish any information as to the out-turn), be realised for the capital expended. One of the gentlemen who instituted the trial has relinquished the enterprise, but Mr. Lees continues to persevere, and still hopes to succeed.

13. From the experiments carried on in the Government farm at Shevacausey, in the above district, it appears that the cultivation of American cotton on poonjah land is attended with loss from the scantiness of the produce, while, if watered, the net annual proceeds, even at five rupees per acre, are scarcely sufficient to attract the attention of Europeans to the speculation, or to induce the native growers to devote much land to it.

14. In Coimbatore, American cotton was cultivated in 336 acres in the Pullachy and Coimbatore talooks; the produce of it amounted to 45½ candies, and was sold to the late Mr. D. Campbell, and certain private merchants. Each acre is estimated to yield 68 lbs. of American cotton, while it produces 149 lbs. of the other kinds. Though the cultivation of cotton generally was extended, the produce from the adverse state of the season fell short of the yield of the previous year.

15. An attempt has been made by the collector of Nellore to introduce the cultivation of the American species in his district, but the result is not known, and will be reported on hereafter.

16. The Board take this opportunity of forwarding a statement of the cotton produce of In Cons. this Presidency,* which was called for in extract Minutes of Consultation, 7th December, 28th Feb. 1853, 1852, for the information of the Bombay Government and the Chamber of Commerce. This statement applies strictly to the fusly year 1262, but may be considered as an approximate estimate of the annual return that may be expected at the present time under ordinary circumstances of the season.

Revenue Board Office, Fort St. George, (signed) W. H. Bayley,
22 December 1853. Secretary.

* From Guntoor, 11th in Cons., 18th April 1853; from Nellore, 21st in Cons., 26th May 1853; from Bellary, 14th in Cons., 28th April 1853; from Cuddapah, 13th in Cons., 21st April 1853; from Kurnool, 25th April, in Cons., 5th May 1853; from Madura, 25th August, in Cons., 8th September 1853; from Tinnevely, 15th in Cons., 25 April 1853; from Coimbatore, 26th April, in Cons., 5th May 1853.

II.
Madras.

STATEMENT showing the Extent of Land Cultivated with Indigenous and Exotic Cotton in the Cotton Districts of the Madras Presidency, and its probable yield in Candies of 784 lbs., for the Fusly year 1262.

DISTRICTS.	Land Planted with Cotton.			Probable Produce of Cleaned Cotton in Candies of 784 lbs.			REMARKS.
	Exotic.	Indigenous.	TOTAL.	Exotic.	Indigenous.	TOTAL.	
	Acres.	Acres.	Acres.	Candies.	Candies.	Candies.	
Guntoor -	13	104,612	104,625	-	1,730	1,730	The weight of cleaned cotton is estimated on an average at one-fourth of that of uncleaned. The probable out-turn is stated at the estimates formed in the several collectorates of the average yield of acre.
Bellary -	314	235,243	235,557	12	12,130	12,142	
Cuddapah -	2	89,747	89,749	(2 lbs.)	1,682	1,682	
Kurnool -	42	95,492	95,534	(288 lbs.)	1,424	1,424½	
Madura -	217	86,535	86,752	1	1,859	1,860	
Tinnevely -	1,323	167,356	168,679	26	5,457	5,483	
Coimbatore -	337	128,912	129,249	7	5,767	5,774	
Nellore -	72	7,157	7,229	-	(285 lbs.)	(285 lbs.)	
TOTAL -	2,320	915,054	917,374	46	30,049	30,046	

(signed) W. H. Bayley, Secretary.

To W. H. Bayley, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

GUNTOOR. Para. 1. I HAVE the honour to forward a Statement prepared in the form received with your letter of the 25th July 1850, showing the extent of cotton cultivation in this district in the past fusly as compared with the previous year. It will be seen that there was a decrease of 1,307 a. 8½ c. in the extent of land planted with this crop, in the year under report, below the extent cultivated with a similar crop in fusly 1260; a great falling off is observable in the Timmercotta talook, where, in the past season, a considerable extent of cotton cultivation having been destroyed by a storm, which visited this part of the country on the 7th November 1851, and by the wet, other crops were planted on the land. The extent of land on which cotton has been raised in this district during the past four years is shown in the margin.

	Acres.	Coontahs.
Fusly 1258 -	85,099	15½
" 1259 -	73,984	10
" 1260 -	88,526	19
" 1261 -	87,219	11½

2. The past season was not generally favourable for the crop under remark. The storm above referred was accompanied in many parts with heavy rain, and seriously damaged the young plants; a failure during the growing season of the breeze from seaward is given as another reason for the diminished out-turn, which is estimated at 15,868 candies, 3 t., or 3 t. 10¼ m. per acre, while in fusly 1260 the average per acre was 4 t. 3¼ m. There was a rise in the price of the article in the year under report to the extent shown in the margin.

Average price per Candy of uncleaned Cotton.			
	R.	a.	p.
Fusly 1260 -	14	13	8
" 1261 -	15	14	-

3. It appears from the frontier accounts that 38 candies of dressed, equivalent to 152 candies of rough cotton, were exported into the Hyderabad country during the past season. The quantity stated to have been exported to other districts is shown below; the greater portion of it having been taken into the Rajahmundry and Vizagapatam districts. There was no cotton exported by sea.

TALOOK.	Rough Cotton.			Dressed Cotton.			Equivalent in Rough Cotton.			Total of Columns 2 & 4.		
	C.	t.	m.	C.	t.	m.	C.	t.	m.	C.	t.	m.
Coorapad -	-	-	-	381	10	-	1,526	-	-	1,526	-	-
Nursarowpett -	-	-	-	150	-	-	600	-	-	600	-	-
Innacondah -	-	-	-	151	2	12	604	11	-	604	11	-
Condaneed -	-	7	7 12	-	-	-	-	-	-	-	7	7 12
Guntoor -	-	32	- 8	-	-	-	-	-	-	-	32	- 8
		39	8 4		682	12 12		2,730	11 -		2,769	19 4
Palnaud -	-	17	15 -	-	1,371	5 10	-	5,485	2 8	-	5,502	17 8
TOTAL -	-	57	3 4	-	2,053	18 6	-	8,215	13 8	-	8,272	16 12

4. No instance of the fraudulent adulteration of cotton has been brought to my notice, and opportunity has been taken to reiterate the warning previously given against a practice so detrimental to the interests of all parties concerned.

(signed) A. Purvis,
Acting Collr.Guntoor, Collector's Office,
11 Nvember 1852.

STATEMENT showing the Total Extent of Land Cultivated with Cotton, in the District of *Guntoor*, for Fusly 1261.

T A L O O K S.	F U S L Y 1260.						F U S L Y 1261.					
	CIRCAR LAND.			Enams paying Quit-rent.			CIRCAR LAND.			Enams paying Quit-rent.		
	Acres.	Assessment.	Surva Enam.	Acres.	Quit-rent Assessment.	TOTAL.	Acres.	Assessment.	Surva Enam.	Acres.	Quit-rent Assessment.	TOTAL.
	<i>A. c.</i>	<i>Rs. a. p.</i>	<i>A. c.</i>	<i>A. c.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>A. c.</i>	<i>Rs. a. p.</i>	<i>A. c.</i>	<i>A. c.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>
1. Pruttipand -	179 26	323 15 11	36 5	16 30	6 - 4	330 - 3	166 9½	300 3 3	23 -	25 35	16 6 1	316 9 4
2. Mungalegherry -	1,408 36	2,976 3 -	579 12	239 10	123 5 3	3,099 8 3	1,794 14	3,927 4 6	907 10	460 21	187 15 8	4,115 4 2
3. Bauputlah -	-	-	-	-	-	-	-	-	-	-	-	-
4. Pennoor -	8 -	14 -	-	-	-	14 -	2 20	4 2 -	- 10	-	-	4 2 -
5. Motoor -	1,218 36	1,149 1 1	299 33	129 28	28 10 4	1,177 11 5	994 32	928 12 8	271 35	147 23	58 9 11	987 6 7
6. Repully -	-	-	-	-	-	-	-	-	-	-	-	-
7. Tenally -	-	-	-	-	-	-	-	-	-	-	-	-
8. Guntoor -	1,816 36	3,632 5 5	827 8	248 13	87 5 11	3,739 11 4	2,086 15	3,973 2 9	922 26	447 16	156 4 3	4,129 7 -
9. Coorapand -	8,878 34	14,870 4 1	1,959 4	1,006 22	305 1 -	15,175 5 1	9,607 30	15,244 1 6	2,339 37	1,021 32	315 4 5	15,539 5 11
10. Condaneed -	4,624 39	8,630 14 1	1,676 18	1,169 20	601 - 4	9,231 14 5	5,327 31	9,233 10 7	1,876 2	1,201 36	549 5 8	9,783 - 3
11. Nursarowpett -	4,760 10	6,765 13 9	1,567 24	1,343 36	406 2 6	7,172 - 3	5,093 10	7,573 6 -	2,160 29	2,198 15	595 4 11	8,168 10 11
12. Innacandah -	2,525 33	2,440 3 -	1,086 37	482 5	127 9 3	2,567 12 3	3,466 8	3,228 3 1	1,580 1	972 13	191 8 3	3,419 11 4
13. Datchapully -	10,569 26	15,534 14 9	154 4	13,170 1	6,893 1 6	22,448 - 3	11,606 4	17,115 12 3	260 32	12,037 -	6,272 9 7	23,388 5 10
14. Timmerecottah -	14,366 7	18,620 8 1	24 -	12,151 15	5,412 11 10	24,033 3 11	10,755 21	14,365 15 11	10 -	7,453 4	3,723 15 5	18,089 15 4
TOTAL - - -	50,358 3	74,978 3 2	8,210 25	29,957 31	13,991 - 3	88,969 3 5	50,900 34½	75,894 10 6	10,352 22	25,965 35	12,067 4 2	87,219 11½ 87,961 14 8

Guntoor, Collector's Office,
11 November 1852.

(signed)

A. Purvis,
As. Collector.

II.
Madras.

To the Secretary to the Board of Revenue, Fort St. George.

Sir,

BELLARY.

I HAVE the honour to report, for the information of the Board of Revenue, the following particulars relative to the cultivation of cotton in fusly 1261, in this district, with reference to the 13th paragraph of the Minutes of Consultation, dated 5th December 1848, which accompanied the Board's proceedings of the 18th January 1849.

2. I beg to forward herewith a talookwar statement, No. 1, showing the quantity of land, with its assessment, sown with cotton in fusly 1261, prepared according to the form furnished by the Board on the 25th July 1850.

3. The extent of cotton cultivation in this district, in fusly 1261 and the three preceding years, as also the comparative increase and decrease of fuslies 1260 and 1261, is shown in the annexed abstract:—

ITEM.	Extent of Cultivation in Fusly 1258.	Extent of Cultivation in Fusly 1259.	Extent of Cultivation in Fusly 1260.	Extent of Cultivation in Fusly 1261.	Comparison.	
					Increase.	Decrease.
1.	2.	3.	4.	5.	6.	7.
1. Circar Land - -	1,65,094	1,35,086	1,40,075	1,45,152	5,077	---
2. Enam Land - - -	1,05,163	87,346	1,01,454	1,04,964	3,510	---
TOTAL - - -	2,70,257	2,22,432	2,41,529	2,50,116	8,587	---

4. Cotton is chiefly sown in good regur or black soil, and the season extends chiefly over the months of August and September. Two reasons may be assigned for the increase of cotton cultivation:—

1st. The seasonable rain at the period of sowing the crops.

2nd. The expectation of high prices which had been obtained for the commodity in the preceding year.

5. The prices at which cotton sold during the two fuslies 1260 and 1261, was as follows:—

	Rs.	a.	p.
In fusly 1260, per candy of 20 Cutcha maunds - - -	50	2	-
In fusly 1261 ditto - - - ditto - - -	42	6	-

I am informed that the cotton cleaned by the Dharwar gin process, realized a higher price at Madras and other places.

6. The cultivation of the American seed cotton does not seem to be successful. In two of the most western talooks only it has been taken up with any vigour, the ryots are not disposed to undertake it generally. The demand in Bombay for this staple has led to advances being made by merchants to ryots in the western talooks, which accounts for its comparative success; the cultivation was carried on with the seeds of preceding years' produce. It will be observed by the accompanying statement that this seed was sown in 44 villages of six talooks in this year, 695 acres were sown with it, which is said to have produced 2,702 maunds and 22 seers of seed cotton, and 900 $\frac{1}{4}$ maunds of cleaned cotton.

FUSLIES.	Number of Talooks.	Number of Villages.	Quantity of Seed Sown.	Extent of Land.	Assessment.	Amount of Demand.	Quantity of Seed Cotton produced.	Of which, Quantity of Seed.	Quantity of Cleaned Cotton without Seed.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
			Mds. d. s.	Acres g. as.	Rs. a. p.	Rs. a. p.	Mds. d. s.	Mds. l. s.	Mds. d. s.
1260 - -	7	62	79 3 10	166 20 0	258 2 -	190 4 -	646 2 5	451 2 11	194 3 6
1261 - -	6	44	376 3 9	695 0 0	1,122 - -	821 - -	2,702 1 10	1,802 0 9	900 1 1
Increase - -	-	-	296 3 11	529 20 0	863 14 -	630 12 -	2,055 3 5	1,350 1 10	705 1 7
Decrease - -	1	18	-	-	-	-	-	-	-

Bellary, Collector's Office,
8 July 1853.

(signed) C. Pelly,
Collector.

No. 1.—STATEMENT showing the Extent of LAND Cultivated with COTTON in the District of Bellary, for Fusly 1261, prepared agreeably to the Form annexed to the Board's Letter of the 25th July 1850.

		Circular Land.		Enam Land.			TOTAL.		
DIVISION.		Acres.	Assessment.	Surva	Jodee Enam.		Total of Acres in Columns 4 and 5.	Acres in Columns 2 and 7.	Assessment in Columns 3 and 6.
				Enam.	Acres.	Quit Rent.			
1.		2.	3.	4.			5.	6.	7.
Collector.	1. Bellary - - -	23,759	32,073	10,962	5,698	1,071	16,660	40,419	33,144
	2. Kumplee - - -	1,394	782	177	128	15	305	1,699	797
	3. Hurponhully - -	4,510	4,421	291	1,238	845	1,529	6,039	5,266
	4. Koodleghee - -	528	794	97	-	-	97	625	794
	5. Hoovenhugaly - -	10,053	13,148	1,004	2,754	2,366	3,758	13,811	15,514
	6. Adonie - - -	13,850	19,246	7,582	1,096	644	9,278	23,128	19,890
	7. Goollem - - -	32,534	59,561	25,780	4,518	1,580	30,298	62,832	61,141
	8. Punchapollem - -	7,028	11,432	6,011	676	330	6,687	13,715	11,762
	9. Gooty - - -	21,746	36,173	16,962	5,226	1,811	22,188	43,934	37,984
	10. Yadakee - - -	8,233	7,880	4,710	1,287	240	5,997	14,230	8,120
	11. Raidroog - - -	6,364	8,545	982	2,980	1,203	3,962	10,326	9,748
	12. Madugserah - -	256	91	-	-	-	-	256	91
TOTAL - - -		1,30,255	1,94,146	74,558	26,201	10,105	1,00,759	2,31,014	2,04,251
Sub-Collector.	1. Anuntapoor - - -	3,134	1,295	408	76	13	484	3,618	1,308
	2. Pengondah - - -	2,064	805	446	-	-	446	2,511	805
	3. Codecondah - - -	414	233	36	-	-	36	450	233
	4. Taudpatry - - -	8,818	14,744	2,793	367	102	3,160	11,978	14,846
	5. Dhurmavarum - -	466	80	64	15	1	79	545	90
TOTAL - - -		14,897	17,166	3,747	458	116	4,205	19,102	17,282
GRAND TOTAL - - -		1,45,152	2,11,312	78,305	26,659	10,221	1,04,964	2,50,116	2,21,533

Bellary, Collector's Office,
8 July 1853.

(Errors excepted.)

(signed) C. Pelly,
Collector.

No. 2.—STATEMENT of American COTTON SEED Sown and Gathered in the Bellary Division of the Ceded District, for Fusly 1261.

NAMES of TALOOKS.	Number of Villages.	Seed Sown.			Of which not come up at all.	Quantity remain- ing.	Extent of Regard Land Occupied.			Quantity of Cotton Produce.	Of which Quantity of Seed.	Remain- ing Quantity of Cleaned Cotton.
		Quantity of Seed Sown sent from Hoozoor.	Quantity of Seed Sown from the remaining Produce of last year.	TOTAL			Acres.	Assess- ment.	Amount.			
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
Produce:		M. s.	M. s.	M. s.	M. s.	M. s.	As.	C.Rs.	C.Rs.	M. s.	M. s.	M. s.
1. Hurponhully -	8	- -	127 24	127 24	- -	127 24	256	450	316	997 24	665 -	332 24
2. Hoovenhugaly	8	- -	204 28	204 28	- -	204 28	408	608	456	1,595 37	1,004 18	531 19
3. Adonie - -	6	- -	21 24	21 24	- -	21 24	19	27	21	80 1	53 17	26 32
4. Goollem - -	5	- -	8 36	8 36	1 -	7 36	12	37	28	29 8	19 22	9 34
TOTAL - -	27	- -	362 16	362 16	1 -	361 16	695	1,122	821	2,702 22	1,802 9	900 13
Not come up at all:												
1. Gooty - -	11	- -	12 8	12 8	12 8	- -	-	-	-	-	-	-
2. Raidroog - -	6	- -	2 21	2 21	2 21	- -	-	-	-	-	-	-
TOTAL - -	17	- -	14 29	14 29	14 29	- -	-	-	-	-	-	-
GRAND TOTAL -	44	- -	376 45	376 45	15 29	361 16	695	1,122	821	2,702 22	1,802 9	900 13

Bellary, Collector's Office,
8 July 1853.

(Errors excepted.)

(signed) C. Pelly,
Collector.

II.
Madras.

To *W. H. Bayley*, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

Cuddapah.

Para. 1. THE cultivation of American cotton, in fusly 1261, was carried on in 15 villages of the four talooks of Koilgoontla, Goorrumkondah, Muddenpully, and Poolevaidla. In the dry land 569 tolas weight of seed was sown in 3 *a.* 26 *c.* 15 *as.*, assessed at Rs. 6. 14. 3., and the produce was 720 tolas weight of cotton, and 1,397 tolas weight of seed. The seed was sown at different times from July to October, and the produce was diminished partly by blight and partly by heavy rain, so that, with the exception of a small piece of land measuring 35 coontahs on which the crop having been watered from a well, the return was good; in no instance was more than half a full crop realised.

2. In garden land 16 *c.* 12 *as.* of land was cultivated, the assessment on which was R. 1. 6. 4., the quantity of seed sown was 120 tolas weight, and the produce realised was 480 tolas weight of cotton, and 960 tolas weight of seed. The seed sown in October came to nothing, as the plants were blighted when only a few inches high, but that sown in July, and watered every eight days, gave three crops, the combined weight of the seed and the cotton of which was 240 tolas for the first gathering, 480 for the second, and 720 for the third.

3. I have received a fresh supply of seed through Dr. Wight, and have distributed it in the talooks, with directions to the several tahsildars to use their best endeavours to encourage its extended cultivation.

(signed) *H. Forbes*,
Collector.

Cuddapah, Collector's Office,
28 September 1852.

STATEMENT Exhibiting the Extent of Lands under the Culture of COTTON in the Zillah of *Cuddapah*,
for Fusly 1261.

Number.	T A L O O K S.	Circar Land.		Enam Land.			T O T A L.	
		Acres.	Assessment.	Surva Enam.	Jodee Enam.		Acres.	Assessment.
				Acres.	Acres.	Assessment.		
1.	2.	3.	4.	5.	6.	7.	8.	9.
			<i>Rs. a. p.</i>			<i>Rs. a. p.</i>		<i>Rs. a. p.</i>
1	Cumbum - - -	1,927 22 0 $\frac{1}{2}$	2,390 2 2	1,414 5 0 $\frac{1}{2}$	28 23 7	21 7 4	3,370 10 7 $\frac{1}{2}$	2,411 9 6
2	Doopaud - - -	1,919 4 4 $\frac{1}{2}$	1,604 2 4	1,232 12 14 $\frac{1}{2}$	35 19 6	7 2 2	3,186 36 8 $\frac{1}{2}$	1,701 4 6
3	Budwail - - -	2,346 1 0 $\frac{1}{2}$	2,303 15 2	841 4 0 $\frac{1}{2}$	79 9 12	17 10 11	3,266 14 13	2,321 10 1
4	Jummulmudgoo -	16,797 39 10	2,833 - 7	9,062 22 2 $\frac{1}{2}$	1,321 32 12 $\frac{1}{2}$	396 8 0	27,182 14 9	28,429 - 9
5	Doovoor - - -	6,734 10 14 $\frac{1}{2}$	11,446 11 5	3,379 39 15	2,627 29 13	882 5 4	12,542 - 10 $\frac{1}{2}$	35,893 7 3
6	Koilgoontlah -	20,260 35 15 $\frac{1}{2}$	34,034 15 5	10,554 11 3 $\frac{1}{2}$	4,646 19 1 $\frac{1}{2}$	1,858 7 10	35,461 26 4 $\frac{1}{2}$	24 2 2
7	Chitwail - - -	5 1 9	24 2 2	11 3 15	- - -	- - -	16 5 - $\frac{1}{2}$	24 2 2
8	Sidhout - - -	977 33 1 $\frac{1}{2}$	1,269 1 8	102 0 6	- - -	- - -	479 39 1 $\frac{1}{2}$	1,269 1 8
9	Chennoor - - -	391 26 5	380 - 5	179 13 15 $\frac{1}{2}$	- - -	- - -	571 - 4 $\frac{1}{2}$	380 - 5
10	Camalapoor -	1,516 6 14	1,730 14 5	1,067 23 12	78 32 1 $\frac{1}{2}$	13 7 -	2,662 22 11 $\frac{1}{2}$	1,744 5 5
11	Goorrumkondah -	67 17 8	14 12 3	- - -	- - -	- - -	67 17 8	14 12 3
12	Muddenpully -	238 16 12 $\frac{1}{2}$	105 5 2	28 32 10	- - -	- - -	267 9 6 $\frac{1}{2}$	105 5 2
13	Poolevendiah -	5,196 21 4 $\frac{1}{2}$	3,883 3 3	262 20 3 $\frac{1}{2}$	- - -	- - -	5,459 1 7 $\frac{1}{2}$	3,883 3 3
14	Royachoty - -	991 9 11 $\frac{1}{2}$	577 1 4	124 7 9	- - -	- - -	1,115 17 4 $\frac{1}{2}$	557 1 4
15	Poonganoor -	154 0 6 $\frac{1}{2}$	266 1 8	24 32 2	11 31 13 $\frac{1}{2}$	1 13 1	190 24 6 $\frac{1}{2}$	267 14 9
TOTAL - - -		58,724 7 5 $\frac{1}{2}$	88,153 9 5	28,284 35 7 $\frac{1}{2}$	8,829 38 3 $\frac{1}{2}$	3,198 13 8	95,839 1 - $\frac{1}{2}$	91,352 7 1

(Errors excepted.)

Cuddapah,
11 July 1852.

(signed) *H. Forbes*,
Collector.

To *W. H. Bayley*, Esq., Secretary to the Board of Revenue.18 January 1849.
25 July 1850.

Sir,

I HAVE the honour to submit a report upon the cultivation of cotton in this district for Kurnool fusly 1261, as required by the Board's Circular, noted in the margin.

2. There were 1,14,779 acres of land cultivated with this description of produce in the year under review, being 1,089 acres less than in the previous one, but acres 48,123 in excess of the extent cultivated in 1259.*

3. The following shows the extent of circar and enam lands respectively cultivated with cotton crops only, or with a mixed crop of cotton and other produce:—

	* Fuslies.	Acres.
1259	-	66,656
1260	-	1,15,868
1261	-	1,14,779
Circar land cultivated with cotton	39,620	
Ditto - ditto - mixed crop of cotton and other produce	29,346	
	68,966	
Enam land cultivated with cotton, only	29,221	
Ditto - ditto - with mixed crop of cotton and other produce	16,592	
	1,14,799	

4. The season opened favourably for the cultivation of this product; but at the time when the crop was coming to maturity some heavy falls of rain occurred, which, together with a partial blight that followed, caused the out-turn to be less than an average one. The prices obtained, however, were favourable, being, as shown in the margin,† only a trifle lower than in the previous year, and considerably above the rates obtained in the four previous years. The greater portion of the crop was raised as usual in the regur or black soil, as will be seen by the marginal entry.‡

5. The supply of Mexican seed which was received in the month of June 1851, was distributed amongst the principal growers, and 70 acres of land in different villages were sown with this description of seed, but owing to the same causes as affected the indigenous plant, the crop was deficient, and to a greater degree than that reared from ordinary seed.

6. This failure, together with a prejudice which exists of using the seed for feeding cattle, whereby the profits from the crop are lessened, has tended to create objections to the introduction of this description of cotton, and, notwithstanding my endeavours to encourage further trials, I fear the extension of the cultivation is not speedily to be expected.

(signed) *T. B. A. Conway*,

Kurnool, Government Agent's Office,
12 August 1853. Agent to the Govr.

To *W. H. Bayley*, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

I HAVE the honour to forward the statement of cotton cultivation for fusly 1261, called for in your letter of the 10th instant.

(signed) *T. B. A. Conway*,

Kurnool, Government Agent's Office,
23 November 1853. Agent to the Govr.

† FUSLIES.	Rate per Maund.
	<i>Rs. a. p.</i>
1256	1 12 -
1257	1 12 -
1258	2 2 9
1259	1 13 10½
1260	2 8 11
1261	2 5 10
† Regur	70,934
Masub	32,777
Red soil	11,045
Garden and wet land	23
	1,14,779

STATEMENT showing the Extent of Land Cultivated with Cotton in the *Kurnool* District, for Fusly 1261.

TALOOKS.	Land.	Talooks.		Surva Enams.		Enams Paying Quit-rent.				T O T A L.					
		Assessment.		Acres.		Acres.		Quit-rent Assessment.		Acres.		Assessment and Quit-rent.			
		Acres.	c. as.	Rs.	a. p.	Acres.	c. as.	Acres.	c. as.	Rs.	a. p.	Acres.	c. as.	Rs.	a. p.
Indigenous Cotton:		Acres.	c. as.	Rs.	a. p.	Acres.	c. as.	Acres.	c. as.	Rs.	a. p.	Acres.	c. as.	Rs.	a. p.
1. Chagulmurry -	-	11,719	10 9	17,556	6 11	2,367	23 12½	5,688	17 0½	2,070	7 3	19,775	11 5½	19,626	14 2
2. Sirwell -	-	17,305	27 9½	21,956	5 9	4,267	2 1½	9,238	3 6½	3,621	10 5	30,810	33 0½	25,578	- 2
3. Nundial -	-	12,118	27 6½	15,618	3 10	2,271	23 3½	5,129	22 10½	2,147	14 11	19,519	33 5	17,766	2 9
4. Pauniem -	-	5,729	25 12½	8,370	15 10	-	-	5,023	22 14	1,408	3 8	10,753	8 10½	9,779	3 6
5. Dhone -	-	6,802	10 3½	5,731	2 7	-	-	4,149	37 10½	3,269	1 9	10,952	7 13½	9,000	4 4
6. Goodoor -	-	9,584	10 10	9,563	1 1	-	-	4,275	34 6½	269	12 9	13,860	5 0½	9,832	13 10
7. Nundicootoor -	-	4,641	33 9½	4,885	12 4	-	-	3,011	7 7½	707	3 2	7,653	11 0½	5,592	15 6
8. Atcoor -	-	1,064	5 0½	1,082	6 4	126	15 9½	263	35 10½	71	8 10	1,454	16 4½	1,153	15 2
TOTAL -	-	68,965	30 12½	84,764	6 8	9,032	24 10½	36,780	21 2½	13,565	14 9	1,14,778	36 9½	98,330	5 5
Mexican Cotton:															
1. Nundial -	-	13	0 0	39	7 1	-	-	1	0 0	-	3 -	14	0 0	39	10 1
2. Pauniem -	-	14	25 13½	80	11 -	-	-	-	-	-	-	14	25 13½	80	11 -
3. Nundicootoor -	-	14	0 0	113	15 8	-	-	-	-	-	-	14	0 0	113	15 8
4. Atcoor -	-	13	39 13½	115	- 5	-	-	-	-	-	-	13	39 13½	115	- 5
5. Goodoor -	-	10	12 8	14	1 7	-	-	3	7 12	-	15 8	13	20 4	15	1 3
TOTAL -	-	65	38 3½	363	3 9	-	-	4	7 12	1	2 8	70	5 15½	364	6 5
GRAND TOTAL -	-	69,031	28 15½	85,127	10 5	9,032	24 10½	36,784	28 14½	13,567	1 5	1,14,849	2 8½	98,694	11 10

Kurnool, Government Agent's Office,
23 November 1853.

(signed) T. B. A. Conway,
Agent to the Govr.

To *W. H. Bayley*, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

MADURA. I HAVE the honour to submit a statement and report on the cultivation of cotton in fusly 1261, as required by the circular order dated 18th January 1849.

2. At the time of sowing there was sufficient rain to encourage a considerable increase in the cultivation of cotton in fusly 1261 over 1260, in which again it was in excess of the preceding fusly 1259.

	Acres.
Fusly 1259 -	63,545 5 ½
„ 1260 -	74,687 8 ½
„ 1261 -	85,007 4

3. The crop in the Government talooks was deficient in quantity but good in quality. In Ramnad it is reported of favourably in both respects.

4. In price there was a fall below the year preceding. The rate in fusly 1260 was from 11 ½ to 5, and in 1261 from 7 ½ to 3 ¾. Though there would thus appear to have been a want of demand, I cannot learn that there is any stock remaining on hand.

5. The American seed received from Dr. Wight, which I furnished to the zemindar of Ramnad for cultivation near the sea side, vegetated, but afterwards perished; I doubt the experiment having been fairly tried, and will cause it to be repeated, if possible, next year.

6. The sub-collector also received some seed of the American species of cotton from Dr. Wight, which he distributed in his talooks. The result in the case of only two ryots has yet been reported. In the case of one, the experiment succeeded; in the other, failed.

(signed) R. D. Parker,
Collector.

Madura, 1 March 1853.

STATEMENT showing the Total Extent of LAND Cultivated with COTTON in the Districts of *Madura* and *Dindigul*, for Fusly 1261.

No.	TALOOKS.	CIRCAR LAND.		SURVA ENAM.	ENAM, PAYING QUIT-RENT.		TOTAL.	
		Acres.	Assessment.	Acres.	Acres.	Quit-Rent or Assessment.	Acres.	Assessment and Quit-Rent.
1.	2.	3.	4.	5.	6.	7.	8.	9.
		Acres as.	Rs. a. p.	Acres as.	Acres as.	Rs. a. p.	Acres as.	Rs. a. p.
1	Madacolum -	-	-	13 14 $\frac{1}{2}$	516 14 $\frac{1}{2}$	998 14 2	530 12 $\frac{3}{4}$	998 14 2
2	Theroomungalum -	25,778 0 $\frac{1}{2}$	49,616 9 4	3,221 1 $\frac{1}{4}$	346 15 $\frac{1}{2}$	382 1 1	29,346 1	49,998 10 8
3	Meylore -	-	-	-	-	-	-	-
4	Ramagherry -	308 5 $\frac{1}{4}$	428 2 3	-	-	-	308 5 $\frac{1}{4}$	428 2 3
		26,086 5 $\frac{1}{2}$	50,044 11 7	3,234 15 $\frac{1}{2}$	863 14	1,380 15 3	30,185 3	51,425 10 10
5	Taudicomboo -	1,096 12	1,132 8 10	-	-	-	1,096 12	1,132 8 10
6	Jyempully -	2,973 12 $\frac{3}{4}$	4,928 4 3	36 11	-	-	3,010 7 $\frac{3}{4}$	4,928 4 3
7	Thengurray -	3,576 1	3,974 7 1	64 7 $\frac{3}{4}$	-	-	3,640 8 $\frac{3}{4}$	3,974 7 1
8	Nellacottah -	1,804 6 $\frac{1}{2}$	696 8 -	55 14 $\frac{1}{2}$	-	-	1,860 4 $\frac{1}{2}$	696 8 -
		9,451 0 $\frac{1}{4}$	10,731 12 2	157 1	-	-	9,608 1 $\frac{1}{4}$	10,731 12 2
	TOTAL - -	35,537 5 $\frac{1}{2}$	60,776 7 9	3,392 0 $\frac{1}{2}$	863 14	1,380 15 3	39,793 4 $\frac{1}{2}$	62,157 7 -
1	Ramnad Zemin- dary -	27,521 12 $\frac{1}{2}$	35,887 5 2	65 2 $\frac{1}{2}$	-	-	27,586 15	35,887 5 2
2	Shervagungh Zemin- dary -	2,798 3 $\frac{1}{4}$	3,310 13 3	5 0	8 9 $\frac{1}{2}$	11 - 1	2,811 12 $\frac{3}{4}$	3,321 13 4
3	Seroopallay -	-	-	-	-	-	-	-
4	Pooliengolum -	432 0 $\frac{1}{4}$	633 13 4	76 8	-	-	508 8 $\frac{1}{4}$	633 13 4
5	Jothulnaiknoor -	27 0 $\frac{3}{4}$	49 13 8	-	-	-	27 0 $\frac{3}{4}$	49 13 8
6	Thodapanaiknoor -	71 14 $\frac{3}{4}$	91 15 9	-	-	-	71 14 $\frac{3}{4}$	91 15 9
7	Oodappavaiknoor -	210 7	287 11 4	33 4 $\frac{1}{4}$	-	-	243 11 $\frac{1}{4}$	287 11 4
8	Keelakottay -	83 11 $\frac{1}{2}$	158 3 5	17 7	-	-	101 2 $\frac{1}{2}$	158 3 5
9	Nadoocottay -	104 15 $\frac{1}{2}$	125 7 3	32 12	-	-	137 11 $\frac{1}{4}$	125 7 3
10	Malacottay -	107 3 $\frac{1}{2}$	177 9 -	46 14 $\frac{1}{2}$	-	-	154 1 $\frac{3}{4}$	177 9 -
11	Valleyacoondum -	-	-	-	-	-	-	-
12	Auyacoody -	3,792 3 $\frac{1}{4}$	4,226 12 9	204 15	-	-	3,997 2 $\frac{1}{4}$	4,226 12 9
13	Mambaray -	21 12	23 5 10	-	-	-	21 12	23 5 10
14	Etiacottay -	112 4 $\frac{1}{2}$	81 3 4	-	-	-	112 4 $\frac{1}{2}$	81 3 4
15	Bodinaiknoor -	143 4 $\frac{1}{2}$	153 9 10	-	-	-	143 4 $\frac{1}{2}$	153 9 10
16	Thavarom -	-	-	-	-	-	-	-
17	Erasakanaiknoor -	118 10 $\frac{1}{2}$	85 10 5	-	-	-	118 10 $\frac{1}{2}$	85 10 5
18	Guntamanaiknoor -	1,056 12	1,327 2 3	-	-	-	1,056 12	1,327 2 3
19	Cunnewady -	3,532 4 $\frac{1}{2}$	4,950 10 7	37 2	-	-	3,569 6 $\frac{1}{4}$	4,950 10 7
20	Amiavaiknoor -	409 15 $\frac{1}{2}$	656 10 7	4 2 $\frac{3}{4}$	-	-	414 2 $\frac{1}{4}$	656 10 7
21	Cadoor -	132 6 $\frac{1}{4}$	148 5 8	5 12 $\frac{3}{4}$	-	-	138 2 $\frac{3}{4}$	148 5 8
22	Maroongapoory -	498 9	581 10 10	-	-	-	498 9	581 10 10
23	Valoor Moottah -	3,399 5	5,786 6 7	35 5 $\frac{1}{4}$	-	-	3,434 10 $\frac{3}{4}$	5,786 6 7
24	Ruttianbaudy Moottah -	68 8 $\frac{3}{4}$	34 9 2	-	-	-	66 8 $\frac{3}{4}$	34 9 2
	TOTAL - -	44,641 4 $\frac{1}{2}$	58,778 14 -	564 6	8 9 $\frac{1}{2}$	11 - 1	45,214 4	58,789 14 1
	GRAND TOTAL - -	80,178 10 $\frac{1}{2}$	1,19,555 5 9	3,956 6 $\frac{1}{2}$	872 7 $\frac{1}{2}$	1,391 15 4	85,007 8 $\frac{1}{4}$	1,20,947 5 1

In last Fusly - - - - - 74,687 8 $\frac{1}{2}$

Increase - - - - - 10,312 15 $\frac{3}{4}$

(E. E.)

Madura, 11 July 1852.

(signed) R. D. Parker, Collector.

II.

Madras.

TINNEVELLY.

To W. H. Bayley, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

1. WITH reference to the orders contained in para. 13 of extract from the Minutes of Consultation, under date the 5th December 1848, prefixed to the Board's Proceedings of the 18th January 1849, I have the honour to submit a special report on the cultivation, &c. of cotton in this district for Fusly 1261.

2. The following is an abstract statement of the land employed for the cultivation of indigenous and foreign cotton in Fusly 1261, in comparison with the previous year, Fusly 1260, from which it will be seen that the extent of land cultivated in the Ayen villages during the Fusly under report exceeded that of the previous year by 23,657 acres, yielding a revenue of 19,024 rupees per annum: from which decrease in the extent of land cultivated in the Surva Maniem and Jodeghy villages being deducted, there is a net increase in favour of Fusly 1261 of 22,433 $\frac{1}{2}$ acres, consisting of country and foreign varieties. This increase is attributed to the still increasing demand for cotton for exportation from Tutacorin, and to the favourableness of the season for dry cultivation.

COTTON CULTIVATION for Fusly 1261.

1.	FUSLY 1260.			FUSLY 1261.			INCREASE.			DECREASE.		
	Extent of Cultivation.		Teerwah.	Extent of Cultivation.		Teerwah.	Extent of Cultivation.		Teerwah.	Extent of Cultivation.		Teerwah.
	2.	3.		4.	5.		6.	7.		8.	9.	
	Acres.	Rs. a. p.		Acres.	Rs. a. p.		Acres.	Rs. a. p.		Acres.	Rs. a. p.	
In Ayen Villages - -	1,07,637 $\frac{1}{2}$	95,384 1 3		1,31,294 $\frac{5}{8}$	1,14,408 2 3		23,656 $\frac{5}{8}$	19,024 1 -				
In Surva Enam ditto - -	3,021 $\frac{1}{2}$	- - -		2,899 $\frac{15}{32}$	- - -		- - -	- - -		122 $\frac{26}{64}$	- - -	
In Jodeghy ditto - -	7,068 $\frac{3}{4}$	8,460 8 2		5,967 $\frac{33}{64}$	7,066 10 2		- - -	- - -		1,101 $\frac{3}{64}$	1,393 14 -	
	1,17,727 $\frac{3}{4}$	1,03,844 9 5		1,40,161 $\frac{5}{64}$	1,21,474 12 5		23,656 $\frac{5}{8}$	19,024 1 -		1,223 $\frac{29}{64}$	1,393 14 -	
Of which												
Nadan Parootthy - - -	19,281 $\frac{1}{16}$	- - -		22,447 $\frac{1}{2}$	- - -							
Cooppan ditto - - -	98,078 $\frac{29}{32}$	- - -		1,15,880 $\frac{23}{32}$	- - -							
Foreign Cotton - - -	968 $\frac{7}{64}$	- - -		1,833 $\frac{1}{4}$	- - -							
				Deduct Decrease - - -			1,223 $\frac{29}{64}$	1,393 14 -				
				Net Increase - - -			22,433 $\frac{1}{2}$	17,630 3 -				

3. The exports of cotton (including those to Travancore through the frontier choukey) during the past year exceeded those of the preceding one by candies 6,048, as shown in the margin.*

4. There have been no complaints heard in the last Fusly of such adulterations and mixture of leaves and rubbish with the cotton taken to Tutacorin for sale as occurred in the preceding year. The business seems, moreover, to be less exclusively than it was in the hands of chitties, as it is understood that the growers themselves are getting into the practice of conveying the commodity on their own account to Tutacorin, and selling it to the European agents.

5. I regret to say that success seems not to have attended the endeavour which I reported last year to be making by certain gentlemen from England to cultivate American cotton extensively on the coast of the district. These gentlemen have declined to furnish me with any information of the produce of their fields in the past year; but from personal observation and general inquiry, I know that, though the quality of the cotton is all that was expected or desired, the quantity of produce was so scanty that return for capital expended has

	Candies.
* Fusly 1260 - - - - -	23,734
Fusly 1261 - - - - -	
From the Port of Tutacorin - - - - -	25,406
From the Port of Vypaur - - - - -	4,376
	29,782
Increase - - - - -	6,048

has been most unremunerative. One party has already relinquished the enterprise, but Mr. Lees perseveres, and still hopes to succeed.

6. Annexed is a statement prepared to show, as far as can be judged from the results of two years' experiments in the Government cotton farm at Shevacausey, what prospect there seems of the cultivation of American cotton being successfully prosecuted in this district. The charges of cultivation have been assumed as moderate as possible; indeed lower than they could be brought, I imagine, by European planters, and for the price has been adopted the offer made by Mr. David Lees of 9 annas per toolam, which, however, the gentlemen now engaged in the speculation in Trichendoor decline to promise. On these data it appears that American cotton can only be raised as dry cultivation at a loss, while, if watered, the net annual proceeds, under 5 rupees per acre, at most, are not sufficient to attract Europeans to the speculation, nor to induce the native growers to devote much land to it.

I T E M S.	FUSLY 1260.			FUSLY 1261.			INCREASE.			DECREASE.		
	Extent of Cultivation.	Produce thereof.	Average Produce per Acre.	Extent of Cultivation.	Produce thereof.	Average Produce per Acre.	Extent of Cultivation.	Produce thereof.	Average Produce per Acre.	Extent of Cultivation.	Produce thereof.	Average Produce per Acre.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
	Acres.	Lbs.	Lbs.	Acres.	Lbs.	Lbs.	Acres.	Lbs.	Lbs.	Acres.	Lbs.	Lbs.
Nunjah Garden - -	4 $\frac{61}{64}$	1,911 $\frac{1}{2}$	386	5	1,755	351	3 $\frac{3}{4}$	-	-	-	156 $\frac{1}{2}$	35
Poonjah Field - -	13 $\frac{33}{64}$	1,007 $\frac{1}{4}$	74 $\frac{1}{2}$	44 $\frac{1}{2}$	3,118	70	30 $\frac{31}{64}$	2,110 $\frac{1}{4}$	-	-	-	4 $\frac{1}{2}$
TOTAL - - -	18 $\frac{1}{2}$	2,918 $\frac{3}{4}$	157 $\frac{3}{4}$	49 $\frac{1}{2}$	4,873	98 $\frac{1}{2}$	31	1,954 $\frac{1}{4}$	-	-	-	50 $\frac{1}{2}$

	NUNJAH GARDEN.		POONJAH FIELD.	
	Fusly 1260.	Fusly 1261.	Fusly 1260.	Fusly 1261.
	Lbs.	Lbs.	Lbs.	Lbs.
Average produce per acre - - -	386	351	74 $\frac{1}{2}$	70
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Price thereof at 5 $\frac{11}{16}$ pice per lb. - -	11 7 -	10 6 5	2 3 4	2 1 3
Charges for cultivation - - -	4 3 7	4 3 7	4 3 7	4 3 7
Government assessment - - -	2 12 2	2 12 2	1 5 6	1 5 6
TOTAL - - -	6 15 9	6 15 9	5 9 1	5 9 1
Net profit per acre - - -	4 7 3	3 6 8	-	-
Net loss per acre - - -	- - -	- - -	3 5 9	3 7 10

7. A statement in the form which accompanied the Board's circular of the 25th July 1850 is herewith forwarded.

I have, &c.

Tinnevely,
20 December 1853.

(signed) C. J. Bird, Collector.

STATEMENT showing the Total Extent of LAND Cultivated with Cotton in the District of Tinnevely, for Fusly 1261.

TALOOKS.			CIRCAR LAND.			SURVA ENAM.			ENAMS PAYING QUIT-RENT.			TOTAL.		
1.	2.	Chains.	Acres.	Assessment.	Chains.	Acres.	Chains.	Acres.	Chains.	Acres.	Quit-Rent or Assessment.	Chains.	Acres.	Assessment and Quit-Rent.
		3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.		
				C. Rs. a. p.					C. Rs. a. p.					C. Rs. a. p.
1	Nelliambalum -	995 $\frac{4}{4}$	3,620 $\frac{4}{4}$	1,596 12 7	-	-	90 $\frac{3}{4}$	293 $\frac{4}{4}$	136 4 7	1,076 $\frac{2}{4}$	3,914 $\frac{1}{4}$	1,733 1 2		
2	Vedooogramum -	1,045 $\frac{3}{4}$	3,802 $\frac{5}{16}$	2,555 15 1	-	-	11 $\frac{1}{4}$	2 $\frac{1}{4}$	- 7 -	1,046 $\frac{1}{4}$	3,804 $\frac{1}{4}$	2,556 6 1		
3	Tenceusey -	508 $\frac{3}{4}$	1,849 $\frac{1}{4}$	1,188 10 4	-	-	-	-	-	508 $\frac{3}{4}$	1,849 $\frac{1}{4}$	1,188 10 4		
4	Sauttoor -	6,897 $\frac{1}{4}$	25,082 $\frac{1}{4}$	31,284 12 1	407 $\frac{3}{4}$	1,482 $\frac{3}{4}$	604 $\frac{3}{4}$	2,197 $\frac{3}{4}$	2,834 11 3	7,909 $\frac{1}{4}$	28,762 $\frac{1}{4}$	34,119 7 4		
5	Streevygoontum -	1,893 $\frac{3}{4}$	6,886 $\frac{1}{4}$	4,904 10 4	120 $\frac{1}{4}$	437 $\frac{1}{4}$	58 $\frac{1}{4}$	212 $\frac{1}{4}$	96 4 6	2,672 $\frac{3}{4}$	7,536 $\frac{3}{4}$	5,000 14 10		
6	Ootiapadarum -	4,383 $\frac{1}{4}$	15,940 $\frac{3}{4}$	15,156 12 7	67 $\frac{1}{4}$	244 $\frac{1}{4}$	180 $\frac{1}{4}$	655 $\frac{3}{4}$	286 10 7	4,630 $\frac{1}{4}$	16,840 $\frac{3}{4}$	15,443 7 2		
7	Punjamaul -	4,265 $\frac{3}{4}$	15,512 $\frac{1}{4}$	2,323 10 10	-	-	21 $\frac{3}{4}$	78 $\frac{1}{4}$	10 - 3	4,287 $\frac{3}{4}$	15,591 $\frac{1}{4}$	2,333 11 1		
8	Nangoonary -	2,156 $\frac{3}{4}$	7,843 $\frac{3}{4}$	3,118 15 8	31 $\frac{1}{4}$	114 $\frac{1}{4}$	36 $\frac{1}{4}$	132 $\frac{3}{4}$	27 9 4	2,224 $\frac{3}{4}$	8,090 $\frac{3}{4}$	3,146 9 -		
9	Vullyoor -	1,915	6,963 $\frac{1}{4}$	2,529 11 6	-	-	-	-	-	1,915	6,963 $\frac{1}{4}$	2,529 11 6		
	TOTAL - - -	24,061 $\frac{6}{4}$	87,500 $\frac{1}{4}$	64,659 15 -	626 $\frac{1}{4}$	2,278 $\frac{1}{4}$	982 $\frac{3}{4}$	3,574 $\frac{1}{4}$	3,391 15 6	25,671 $\frac{2}{4}$	93,253 $\frac{1}{4}$	68,051 14 6		
10	Shermadavy -	540 $\frac{3}{4}$	1,966 $\frac{3}{4}$	529 12 1	-	-	-	-	-	540 $\frac{3}{4}$	1,966 $\frac{3}{4}$	529 12 1		
11	Bremmadasum -	858 $\frac{1}{4}$	3,120 $\frac{1}{4}$	1,300 6 10	-	-	-	-	-	858 $\frac{1}{4}$	3,120 $\frac{1}{4}$	1,300 6 10		
12	Surevilly poothoor -	7,161 $\frac{1}{4}$	26,043 $\frac{1}{4}$	33,938 10 2	86 $\frac{3}{4}$	315 $\frac{1}{4}$	65 $\frac{1}{4}$	237 $\frac{3}{4}$	325 - 9	7,313 $\frac{4}{4}$	26,595 $\frac{3}{4}$	34,263 10 11		
13	Shenkerninarcovil -	3,482 $\frac{9}{4}$	12,663 $\frac{5}{16}$	13,979 6 2	84 $\frac{1}{4}$	305 $\frac{3}{4}$	592 $\frac{3}{4}$	2,155 $\frac{3}{4}$	3,349 9 11	4,159 $\frac{3}{4}$	15,125 $\frac{3}{4}$	17,327 - 1		
	TOTAL - - -	12,042 $\frac{5}{16}$	43,793 $\frac{7}{16}$	49,748 3 3	170 $\frac{3}{4}$	620 $\frac{1}{4}$	658 $\frac{1}{4}$	2,393 $\frac{3}{4}$	3,674 10 8	12,871 $\frac{1}{4}$	46,807 $\frac{1}{4}$	53,422 13 11		
	GRAND TOTAL - - -	36,104 $\frac{3}{4}$	1,31,294 $\frac{5}{4}$	1,14,408 2 3	797 $\frac{1}{4}$	2,899 $\frac{1}{4}$	1,641 $\frac{3}{4}$	5,967 $\frac{1}{4}$	7,066 10 2	38,543 $\frac{1}{4}$	1,40,161 $\frac{9}{4}$	1,21,474 12 5		

Tinnevely, 11 July 1852.

(Errors excepted.)

(signed)

C. J. Bird,
Collector.

To *W. H. Bayley, Esq.*, Secretary to the Board of Revenue.

Sir,

Para. 1. I HAVE the honour to forward a statement of cotton cultivation in this district for Fusly 1261 (1851-52), according to the form which accompanied the Board's circular, dated 18th January 1849.

2. The aggregate quantity of land cultivated with this description of crop amounts to 129,249 acres, or 5,442 more than the quantity of last year, as particularized in the annexed memorandum, bearing an assessment of *Rs. 1,51,753. 6 a. 7 p.*, and settlement of *Rs. 1,38,945. 14 a.* The produce thereof is, however, less than in the past year, from the adverse state of the season.

Description of Lands.		Acres.	Assessment.	Settlement.
			<i>Rs. a. p.</i>	<i>Rs. a. p.</i>
Circar Land -	Poonjah land - -	1,16,261 1 $\frac{1}{2}$	1,24,820 15 7	1,24,619 15 7
	Garden land - -	4,457 1 $\frac{3}{4}$	17,240 14 11	12,800 14 10
	Nunjah land - -	414 8 $\frac{1}{2}$	2,937 4 8	1,081 3 5
	TOTAL - - -	1,21,132 11 $\frac{1}{2}$	1,44,999 3 2	1,38,502 1 10
Enam Land -	Poonjah land - -	5,295 10 $\frac{3}{4}$	4,713 4 8	—
	Garden land - -	8 9 $\frac{1}{4}$	34 8 3	—
	Nunjah land - -	9 6	56 6 10	—
	TOTAL - - -	5,313 10	4,806 3 9	—
Jodega Enam	Poonjah land - -	2,802 12	1,947 15 8	443 12 2
	Garden land - -	—	—	—
	Nunjah land - -	—	—	—
	TOTAL - - -	2,802 12	1,947 15 8	443 12 2
TOTAL of Fusly 1261 - - -		1,29,249 1 $\frac{1}{2}$	1,51,753 6 7	1,38,945 14 -
TOTAL of Fusly 1260 - - -		1,23,807 1 $\frac{1}{4}$	1,49,579 1 -	1,38,335 11 -
NET INCREASE - - -		5,442 0 $\frac{1}{4}$	2,174 5 7	610 3 -

3. American cotton was cultivated in 336 acres in Pullachey and Coimbatore Talooks, and the produce with seed was 45 candies and 17 maunds, which was sold both to the late Mr. D. Campbell, as well as to private merchants.

4. The other kinds of cotton amounted to 38,429 candies, which falls short of the produce of the last Fusly in candies 1,778. Of this, 12,966 candies were consumed within the district, and the remainder, 25,463 candies, left available for other markets. The price fell from 52 to 46 rupees per candy of wool from reduced demand.

5. The produce of American seed cotton per acre of land is estimated at 68 lbs., that of the other kinds 149, or about 119 per cent more.

6. The memorandum in the margin will show that 2,670* candies of wool, equivalent to 11,347 candies of seed cotton, were exported during the year under report, and the remainder, 14,116 candies, had either been sold to merchants within the district or held in stock.

I have, &c.
(signed) *E. B. Thomas,*
Collector.

Coimbatore,
8th November 1852.

* Bombay - - - - -	670
Madras - - - - -	255
Salem - - - - -	610
Tinnevelly - - - - -	940
Madura - - - - -	40
Calicut - - - - -	125
	2,670

STATEMENT showing the Extent of LAND Cultivated with

No.	NAMES of TALOOKS.	GOVERNMENT LANDS. - - - - -						COUNTRY COTTON. - - - - -		
		Punjab Lands.			Garden Lands.					
		Acres.	Assessment.	Settlement.	Acres.	Assessment.	Settlement.			
		3.	4.	5.	6.	7.	8.			
	Collector's Division:		Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.			
1	Coimbatore - - -	10,936 6 1/4	12,934 11 9	12,934 11 9	684 3 1/4	2,188 7 2	2,062 1 11			
2	Suttimungalum - - -	1,913 3 1/4	1,994 15 3	1,960 9 3	105 1 1/4	325 2 1	222 9 9			
3	Danaickencottah - - -	665 14 3/4	819 - 1	819 - 1	78 5	263 6 -	263 6 -			
4	Colligal - - -	759 3 1/4	889 8 2	889 8 2	- - -	- - -	- - -			
5	Pullachey - - -	7,853 2 1/2	10,676 15 8	10,676 15 8	154 10 1/2	696 6 1	658 11 10			
6	Perindoray - - -	11,356 11 3/4	9,058 13 8	9,003 3 11	431 7 1/2	1,380 5 11	645 2 1			
7	Audioor - - -	373 4	435 - 9	435 - 9	7 13	24 10 6	24 10 6			
8	Errode - - -	5,812 7 1/2	5,921 7 10	5,921 7 10	120 10 3/4	418 14 2	248 11 8			
9	Cheyoor - - -	4,967 1 1/2	5,464 1 4	5,410 - 7	787 7 1/2	2,562 9 2	1,259 10 5			
10	Pulladem - - -	22,682 10 1/2	34,789 9 11	34,789 9 11	789 5 1/2	3,465 4 11	2,439 8 8			
11	Neilgherry - - -	-	-	-	-	-	-			
	TOTAL - -	67,320 1 1/4	82,984 4 5	82,840 3 11	3,159 0 1/2	11,325 2 -	7,824 8 10			
	Sub-Collector's Division:									
12	Dharpoorum - - -	3,766 6 3/4	3,604 12 5	3,604 12 5	181 14 1/2	733 10 10	733 10 10			
13	Kongiem - - -	17,414 6 1/4	10,921 12 10	10,921 12 10	- - -	- - -	- - -			
14	Caroor - - -	5,025 1 3/4	3,569 1 10	3,569 1 10	30 2	121 12 3	121 12 3			
15	Chuckragherry - - -	22,443 6 1/2	23,395 4 3	23,395 4 3	1,076 11 1/2	5,024 13 1	4,085 6 2			
	TOTAL - -	48,649 5 1/2	41,490 15 4	41,490 15 4	1,288 12 1/2	5,880 4 2	4,940 13 3			
	GRAND TOTAL - -	1,15,969 7 1/4	1,24,475 3 9	1,24,331 3 3	4,447 12 1/2	17,205 6 2	12,765 6 1			

No.	NAMES of TALOOKS.	GOVERNMENT LANDS.						AMERICAN COTTON.		
		Garden Lands.			Nunjah Lands.			TOTAL.		
		Acres.	Assessment.	Settlement.	Acres.	Assessment.	Settlement.	Acres.	Assessment.	Settlement.
		18.	19.	20.	21.	22.	23.	24.	25.	26.
	Collector's Division:		Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
1	Coimbatore - - -	- - -	- - -	- - -	- - -	- - -	- - -	28 14 1/2	38 11 4	38 11 4
2	Suttimungalum - - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
3	Danaickencottah - - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
4	Colligal - - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
5	Pullachey - - -	9 5	35 8 9	35 8 9	35 15 1/2	198 10 -	31 3 4	308 -	541 3 3	316 13 1
6	Perindoray - - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
7	Audioor - - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
8	Errode - - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
9	Cheyoor - - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
10	Pulladem - - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
11	Neilgherry - - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
	TOTAL - -	9 5	35 8 9	35 8 9	35 15 1/2	198 10 -	31 3 4	336 14 1/2	579 14 7	355 8 5
	Sub-Collector's Division:									
12	Dharpoorum - - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
13	Kongiem - - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
14	Caroor - - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
15	Chuckragherry - - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
	TOTAL - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
	GRAND TOTAL - -	9 5	35 8 9	35 8 9	35 15 1/2	198 10 -	31 3 4	336 14 1/2	579 14 7	355 8 5

COTTON in the District of Coimbatore, for Fusly 1261.

GOVERNMENT LANDS.

COUNTRY COTTON.			AMERICAN COTTON.					
Nunjah Lands.			TOTAL.			Punjah Lands.		
Acres.	Assessment.	Settlement.	Acres.	Assessment.	Settlement.	Acres.	Assessment.	Settlement.
9.	10.	11.	12.	13.	14.	15.	16.	17.
	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>		<i>Rs. a. p.</i>	<i>Rs. a. p.</i>		<i>Rs. a. p.</i>	<i>Rs. a. p.</i>
5 7 $\frac{1}{4}$	37 - 7	37 - 7	11,626 1 $\frac{1}{4}$	15,160 3 6	15,033 14 3	28 14 $\frac{1}{2}$	38 11 4	38 11 4
4 2	27 4 9	13 14 11	2,022 6 $\frac{1}{2}$	2,347 6 1	2,197 1 11	—	—	—
—	—	—	744 3 $\frac{1}{2}$	1,082 6 1	1,082 6 1	—	—	—
—	—	—	759 3 $\frac{1}{2}$	889 8 2	889 8 2	—	—	—
12 5 $\frac{1}{2}$	71 14 1	19 5 4	8,020 2 $\frac{1}{2}$	11,445 3 10	11,355 - 10	262 11 $\frac{1}{2}$	307 - 6	250 1 -
—	—	—	11,788 3 $\frac{1}{2}$	10,439 3 7	9,648 6 -	—	—	—
—	—	—	381 1	459 11 3	459 11 3	—	—	—
—	—	—	5,933 2 $\frac{1}{2}$	6,340 6 -	6,170 3 6	—	—	—
103 8	839 6 2	198 - 6	5,858 1 $\frac{1}{2}$	8,866 - 8	6,867 11 6	—	—	—
95 11	947 4 4	269 12 -	23,567 11 $\frac{1}{2}$	39,202 3 2	37,498 14 7	—	—	—
—	—	—	—	—	—	—	—	—
221 3	1,922 13 11	538 1 4	70,700 5 $\frac{1}{2}$	96,232 4 4	91,202 14 1	291 10	345 11 10	288 12 4
—	—	—	—	—	—	—	—	—
28 3	207 2 9	52 5 7	3,976 8 $\frac{1}{2}$	4,545 10 -	4,390 12 10	—	—	—
—	—	—	17,414 6 $\frac{1}{2}$	10,921 12 10	10,921 12 10	—	—	—
1 10 $\frac{1}{2}$	6 1 4	6 1 4	5,056 14	3,696 15 5	3,696 15 5	—	—	—
127 8 $\frac{1}{2}$	602 8 8	453 7 10	23,647 10 $\frac{3}{4}$	29,022 10 -	27,934 2 3	—	—	—
—	—	—	—	—	—	—	—	—
157 6	815 12 9	511 14 9	50,095 7 $\frac{3}{4}$	48,187 - 3	46,943 11 4	—	—	—
—	—	—	—	—	—	—	—	—
378 9	2,738 10 8	1,050 - 1	1,20,795 13	1,44,419 4 7	1,38,146 9 5	291 10	345 11 10	288 12 4

GOVERNMENT LANDS.

SURVA OR ENTIRE ENAM LANDS.

Total Extent of Cultivation,
both Country as well as American.

COUNTRY COTTON.

			Punjah Lands.		Garden Lands.		Nunjah Lands.		TOTAL.	
Acres.	Assessment.	Settlement.	Acres.	Assessment.	Acres.	Assessment.	Acres.	Assessment.	Acres.	Assessment.
27.	28.	29.	30.	31.	32.	33.	34.	35.	36.	37.
	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>		<i>Rs. a. p.</i>		<i>Rs. a. p.</i>		<i>Rs. a. p.</i>		<i>Rs. a. p.</i>
11,654 15	15,198 14 10	15,072 9 7	198 3	236 6 1	—	—	—	—	198 3	236 6 1
2,022 6	2,347 6 1	2,197 1 11	28 0 $\frac{1}{2}$	22 3 1	—	—	—	—	28 0 $\frac{1}{2}$	22 3 1
744 3	1,082 6 1	1,082 6 1	—	—	—	—	—	—	—	—
759 3	889 8 2	889 8 2	—	—	—	—	—	—	—	—
8,328 2	11,986 7 1	11,671 13 11	274 8 $\frac{3}{4}$	357 7 9	3 13	16 14 3	—	—	278 5 $\frac{3}{4}$	374 6 -
11,788 3	10,439 3 7	9,648 6 -	111 10 $\frac{1}{2}$	115 13 9	—	—	—	—	111 10	115 13 9
381 1	459 11 3	459 11 3	—	—	—	—	—	—	—	—
5,933 2 $\frac{1}{2}$	6,340 6 -	6,170 3 6	23 8	33 6 -	—	—	—	—	23 8	33 6 -
5,858 1 $\frac{1}{2}$	8,866 - 8	6,867 11 6	139 14 $\frac{1}{2}$	157 - 11	2 13 $\frac{3}{4}$	8 13 -	1 0 $\frac{3}{4}$	8 11 11	143 13	174 9 10
23,567 11 $\frac{1}{2}$	39,202 3 2	37,498 14 7	408 10	729 12 8	—	—	8 5 $\frac{1}{4}$	49 10 11	416 15 $\frac{1}{4}$	779 7 7
—	—	—	—	—	—	—	—	—	—	—
71,037 3 $\frac{3}{4}$	96,812 2 11	91,558 6 6	1,184 7 $\frac{1}{4}$	1,652 2 3	6 10 $\frac{3}{4}$	25 11 3	9 6	58 6 10	1,200 8	1,736 4 4
—	—	—	—	—	—	—	—	—	—	—
3,976 8 $\frac{1}{2}$	4,545 10 -	4,390 12 10	165 6 $\frac{1}{2}$	161 1 1	—	—	—	—	165 6 $\frac{1}{2}$	161 1 1
17,414 6 $\frac{1}{2}$	10,921 12 10	10,921 12 10	3,437 3	2,290 10 6	—	—	—	—	3,437 3	2,290 10 6
5,056 14	3,696 15 5	3,696 15 5	76 2 $\frac{1}{2}$	54 11 8	—	—	—	—	76 2 $\frac{1}{2}$	54 11 8
23,647 10 $\frac{3}{4}$	29,022 10 -	27,934 2 3	432 7 $\frac{1}{4}$	554 11 2	1 14 $\frac{1}{2}$	8 13 -	—	—	434 6 $\frac{1}{4}$	563 8 2
—	—	—	—	—	—	—	—	—	—	—
50,095 7 $\frac{3}{4}$	48,187 - 3	46,943 11 4	4,111 3 $\frac{1}{2}$	3,061 2 5	1 14 $\frac{1}{2}$	8 13 -	—	—	4,113 2	3,069 15 5
—	—	—	—	—	—	—	—	—	—	—
1,21,132 11 $\frac{1}{2}$	1,44,999 3 2	1,38,502 1 10	5,295 10 $\frac{3}{4}$	4,713 4 8	8 9 $\frac{1}{4}$	34 8 3	9 6	58 6 10	5,313 10	4,806 3 9

STATMENT showing the Extent of Land Cultivated with

No.	NAMES of TALOOKS.	Jodega Enam or Enam Lands Paying Quit-Rent.			Total Cultivation of all Description of Land and Cotton.		
		Country Cotton.					
		Punjab Lands.					
		Acres.	Assessment.	Settlement.	Acres.	Assessment.	Settlement.
1.	2.	38.	39.	40.	41.	42.	43.
Collector's Division :			Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
1	Coimbatore - - -	- - -	- - -	- - -	11,853 2 3	15,435 4 11	15,072 9 7
2	Suttimungalum - - -	- - -	- - -	- - -	2,050 7 1	2,369 9 2	2,197 1 11
3	Danaikencottah - - -	- - -	- - -	- - -	744 3 3	1,082 6 1	1,082 6 1
4	Colligal - - -	- - -	- - -	- - -	759 3 1	889 8 2	889 8 2
5	Pullachey - - -	- - -	- - -	- - -	8,606 8 1	12,360 13 1	11,671 13 11
6	Perindoray - - -	- - -	- - -	- - -	11,899 13 3	10,555 1 4	9,648 6 -
7	Audioor - - -	- - -	- - -	- - -	381 1	459 11 3	459 11 3
8	Errode - - -	33 11 1	37 13 8	13 14 8	5,990 6	6,411 9 8	6,184 2 2
9	Cheyoor - - -	72 0 1	73 1 -	14 13 9	6,073 15	9,113 11 6	6,882 9 3
10	Pulladem - - -	310 7 1	387 4 6	47 2 4	24,295 2 1	40,368 15 3	37,546 - 11
11	Neilgherry - - -	- - -	- - -	- - -	- - -	- - -	- - -
TOTAL - -		416 3 1	498 3 2	75 14 9	72,653 15 1	99,046 10 5	91,634 5 3
Sub-Collector's Division :							
12	Dharapoorum - - -	46 6 1	43 - 5	5 5 7	4,188 5 1	4,749 11 6	4,396 2 5
13	Kongiem - - -	2,340 1 1	1,406 12 1	362 7 10	23,191 11 1	14,619 3 5	11,284 4 8
14	Caroor - - -	- - -	- - -	- - -	5,133 0 1	3,751 11 1	3,696 15 5
15	Chuckragherry - - -	- - -	- - -	- - -	24,082 1	29,586 2 2	27,934 2 3
TOTAL - -		2,386 8 1	1,449 12 6	367 13 5	50,595 2	52,706 12 2	47,311 8 9
GRAND TOTAL - -		2,802 12	1,947 15 8	443 12 2	1,29,249 1 1	1,51,753 6 7	1,38,945 14 -

Coimbatore,
11 July 1852.

To W. H. Bayley, Esq., Secretary to the Board of Revenue.

Nellore. Sir, Fort St. George.

WITH reference to your letter of the 27th ultimo, requesting me to expedite the dispatch of my report on the cultivation of cotton for Fusly 1261, I have the honour to point out that the statement, showing the total extent of land cultivated with cotton for Fusly 1261 was sent with the accounts which accompanied the Jummahbundy Report for that Fusly, and it does not appear to have been in contemplation to send any separate report.

2. Cotton is cultivated to but a limited extent in this district; there is, however, comparatively speaking, rather a considerable increase during the Fusly under report over the previous one, as shown by the marginal comparative statement*. No particular remarks beyond this appear to be called for as regards the Fusly in question.

3. I have since transmitted a report on the cultivation of American cotton for Fusly 1262, and taken advantage of an opportunity that offered itself of giving it a fair trial, by giving a considerable quantity of seed to a gentleman who was about to undertake its cultivation. I mention this to show that the subject is receiving attention, though it does not refer to Fusly 1261.

Nellore, Collector's Office,
19 July 1853.

(signed) F. B. Elton,
Collector.

* STATEMENT showing the Increase in Extent of Cultivation of COTTON in Fusly 1261 as compared with that of Fusly 1260.

Increase.		Decrease.		Increase.		Decrease.	
Acres.	Assess. Rs.	Acres.	Assess. Rs.	Acres.	Assess. Rs.	Acres.	Assess. Rs.
Sungum - -	17	-	-	Davagoodoor -	53	65	-
Cavalv - -	11	6	-	Ongole - -	66	234	-
Toomulatlappoor -	27	40	-	Enamanamellore -	69	207	-
Goondavole - -	-	17	12	Chendaloor - -	43	148	-
Ravoor - -	79	50	-				
Calegherry - -	105	147	-	TOTAL - -	554	1,070	105
Woodiagherry - -	-	83	156				169
Sydapoor - -	-	5	1				
Buddapoodv - -	4	17	-	Net Increase - -	449	901	-

Cotton in the District of Coimbatore, for Fusly 1261—*continued.*

COUNTRY COTTON.						AMERICAN COTTON.						TOTAL.					
Total Produce.		Deduct Consumption by the Growers.		Net Quantity brought to the Market.		Total Produce.		Deduct Consumption by the Growers.		Net Quantity brought to the Market.		Total Produce.		Deduct Consumption by the Growers.		Net Quantity brought to the Market.	
44.	45.	46.	47.	48.	49.	50.	51.	52.	53.	54.	55.	56.	57.	58.	59.	60.	61.
C.	M.	C.	M.	C.	M.	C.	M.	C.	M.	C.	M.	C.	M.	C.	M.	C.	M.
4,650	7	2,325	3 $\frac{1}{2}$	2,325	3 $\frac{1}{2}$	15	1 $\frac{1}{2}$	7	10 $\frac{3}{4}$	7	10 $\frac{3}{4}$	4,665	8 $\frac{1}{2}$	2,332	14 $\frac{1}{4}$	2,332	14 $\frac{1}{4}$
162	3 $\frac{1}{2}$	81	1 $\frac{3}{4}$	81	1 $\frac{3}{4}$	-	-	-	-	-	-	162	3 $\frac{1}{2}$	81	1 $\frac{3}{4}$	81	1 $\frac{3}{4}$
194	15	97	7 $\frac{1}{2}$	97	7 $\frac{1}{2}$	-	-	-	-	-	-	194	15	97	7 $\frac{1}{2}$	97	7 $\frac{1}{2}$
198	15 $\frac{7}{16}$	50	8	148	7 $\frac{1}{16}$	-	-	-	-	-	-	198	15 $\frac{7}{16}$	50	8	148	7 $\frac{1}{16}$
1,242	17	436	15 $\frac{1}{2}$	806	1 $\frac{1}{2}$	30	15 $\frac{1}{2}$	-	-	30	15 $\frac{1}{2}$	1,273	12 $\frac{3}{4}$	436	15 $\frac{1}{2}$	836	17
2,005	15 $\frac{13}{16}$	501	8 $\frac{15}{16}$	1,504	6 $\frac{1}{16}$	-	-	-	-	-	-	2,005	15 $\frac{13}{16}$	501	8 $\frac{15}{16}$	1,504	6 $\frac{1}{16}$
50	3 $\frac{3}{16}$	25	1 $\frac{3}{16}$	25	1 $\frac{3}{16}$	-	-	-	-	-	-	50	3 $\frac{3}{16}$	25	1 $\frac{3}{16}$	25	1 $\frac{3}{16}$
1,531	10	444	2	1,087	8	-	-	-	-	-	-	1,531	10	444	2	1,087	8
987	11	493	15 $\frac{1}{2}$	493	15 $\frac{1}{2}$	-	-	-	-	-	-	987	11	493	15 $\frac{1}{2}$	493	15 $\frac{1}{2}$
11,382	5	3,143	15	8,238	10	-	-	-	-	-	-	11,382	5	3,143	15	8,238	10
22,406	2 $\frac{13}{16}$	7,598	19 $\frac{13}{16}$	14,807	3 $\frac{13}{16}$	45	17	7	10 $\frac{3}{4}$	38	6 $\frac{1}{4}$	22,451	19 $\frac{13}{16}$	7,606	10 $\frac{3}{16}$	14,845	9 $\frac{1}{16}$
568	7 $\frac{1}{4}$	320	11 $\frac{1}{4}$	247	16	-	-	-	-	-	-	568	7 $\frac{1}{4}$	320	11 $\frac{1}{4}$	247	16
6,069	4	3,034	13	3,034	11	-	-	-	-	-	-	6,069	4	3,034	13	3,034	11
2,685	10 $\frac{14}{16}$	336	18 $\frac{13}{16}$	2,348	12 $\frac{2}{16}$	-	-	-	-	-	-	2,685	10 $\frac{14}{16}$	336	18 $\frac{13}{16}$	2,348	12 $\frac{2}{16}$
6,700	12 $\frac{14}{16}$	1,674	19 $\frac{1}{16}$	5,025	13 $\frac{1}{16}$	-	-	-	-	-	-	6,700	12 $\frac{14}{16}$	1,674	19 $\frac{1}{16}$	5,025	13 $\frac{1}{16}$
16,023	15 $\frac{1}{2}$	5,367	2 $\frac{103}{16}$	10,656	12 $\frac{13}{16}$	-	-	-	-	-	-	16,023	15 $\frac{1}{2}$	5,367	2 $\frac{103}{16}$	10,656	12 $\frac{13}{16}$
38,429	18 $\frac{7}{16}$	12,966	1 $\frac{51}{16}$	25,463	16 $\frac{7}{16}$	45	17	7	10 $\frac{3}{4}$	38	6 $\frac{1}{4}$	38,475	15 $\frac{1}{16}$	12,973	12 $\frac{13}{16}$	25,502	2 $\frac{1}{16}$

(E. E.)

(signed) E. B. Thomas,
Collector.

STATEMENT showing the Total Extent of LAND Cultivated with COTTON, in the District of Nellore, for Fusly 1261 (A. D. 1851-52).

T A L O O K S.	Circular Land.		Surva Enams.	Enams paying Quit-Rent, including Cundregas and Shrotriems		T O T A L.	
	Extent of Land.	Assessment.	Extent of Land.	Extent of Land.	Assessment.	Extent of Land.	Assessment.
	Acres c. 16.	Rs. a. p.	Acres c. 16.	Acres c. 16.	Rs. a. p.	Acres c. 16	Rs. a. p.
1. Sungum - - -	128 14 12½	166 4 5	- - -	10 37 8	14 6 6	139 12 4½	180 10 11
2. Cauvely - - -	- - -	- - -	- - -	11 15 9	5 15 5	11 15 9	5 15 5
3. Toomalatulpoor - -	43 6 9	74 15 -	- - -	8 23 12	11 - -	51 30 5	85 15 -
4. Goondavole - - -	51 6 6¼	101 5 9	6 10 0	6 33 7	8 12 -	64 9 13¼	110 1 9
5. Ravoor - - -	476 38 9¾	818 3 1	- - -	74 24 6	161 8 1	551 22 15¾	979 11 2
6. Calegherry - - -	319 34 7	262 8 5	1 6 14	61 36 9	62 11 -	382 37 14	325 3 5
7. Woodiagherry - - -	1,313 7 5½	1,117 6 -	213 0 8	139 10 5	89 10 6	1,665 18 2½	1,207 - 6
8. Sydapoor - - -	37 12 3	51 4 5	0 13 10¼	3 5 -	1 8 -	40 30 13¼	52 12 5
TOTAL, Collector's Division - - -	2,370 0 4¾	2,591 15 1	220 31 0¼	316 26 8	355 7 6	2,907 17 13½	2,947 6 7
9. Buddapoody - - -	65 38 10¾	98 4 -	18 30 0	115 25 0	194 9 -	200 13 10¾	292 13 -
10. Davagoodoor - - -	1,399 28 4¾	2,166 - 8	15 25 0	151 14 11	138 3 -	1,566 27 15¾	2,304 3 8
11. Ongole - - -	1,568 22 10¾	3,522 15 9	96 3 12	296 19 6	513 4 7	1,961 5 12¾	4,046 4 4
12. Enamanamellore - -	131 33 7	294 9 4	5 10 15	94 32 15½	165 3 5	231 37 5½	459 12 9
13. Chendaloor - - -	437 8 4½	543 - 5	85 10 2½	357 1 4	614 9 11	879 19 11	1,157 10 4
TOTAL, Sub-Division -	3,603 11 5½	6,634 14 2	220 39 13½	1,015 13 4½	1,625 13 11	4,839 24 7½	8,260 12 1
GRAND TOTAL - - -	5,973 11 10¼	9,226 13 3	441 30 11¼	1,331 39 12½	1,981 5 5	7,747 2 5	11,208 2 8

(E. E.)

Nellore Collector's Cutcherry, }
18 February 1853. }

(signed) D. White, Collector.

II.
Madras.

(No. 136.)

No. 21.

Para. 1. The above letter from the Board of Revenue submits reports from the collectors of the chief cotton-growing districts, noted in the margin,* on the cultivation of cotton during Fusly 1261.

* Guntoor, Bellary, Cuddapah, Kurnool, Madura, Tinnevely, Coimbatore, Nellore.

2. The extent of land, Government and enam, under cultivation, with the assessment or quit-rent upon it, is exhibited below :—

	Extent in Acres.	Assessment.	Average per Acre.
Government land bearing full assessment - -	6,62,887	8,48,677	R. a. p. 1 4 6
Surva Enam or rent-free lands - - -	1,38,585	—	—
Enam lands paying quit-rent - - -	1,09,215	51,442	- 7 6
TOTAL Extent - - -	9,10,187	9,00,119	- 15 9

	Acres.	Assessment.
		Rs.
† Fusly 1260 - -	8,60,927	8,34,897
" 1261 - -	9,10,187	9,00,119
Difference -	49,260	65,232

3. The entire extent of land cultivated with cotton during Fusly 1261, exceeded that of the previous year by 49,260 acres, and the assessment by 65,222 rupees.† This result is attributed to seasonable rain at the period of sowing the crops, as well as to a greater demand for the article.

	Acres.
American species - -	1,465
Indigenous kinds - -	20,968
	22,433

4. With the exception of Guntoor and Kurnool in which there was a falling off in the cultivation to the extent of 1,307 acres and 1,019 respectively, owing to causes which are explained by the Board, in paras. 5 and 6, there was an increase in all the other districts, especially Tinnevely, where 22,433 acres of land were cultivated in excess of the preceding year. The packing for export has much improved, no complaints of adulteration having been this year heard.

5. American cotton still continues to be cultivated to a limited extent, and with no very encouraging results. In the western talooks of Bellary, however, its cultivation has been attended with some success, in consequence of advances made to the ryots for the supply of the demand in Bombay. The experiments instituted in the Cuddapah district have hitherto so signally failed, that the Board do not look for much success from their further prosecution. In Kurnool, Tinnevely, and Coimbatore, the results have been hardly more satisfactory, the quantity produced scarcely yielding an adequate return to the cultivator. The experiments made on the sea side by the zemindar of Ramnad, though promising at first, subsequently failed. The collector of Madura thinks that the trial was not fairly conducted, and proposes to repeat it.

6. The statement of the cotton produce of this presidency referred to in para. 16, will be forwarded to the Government of Bombay, with advertence to Mr. Malet's letter, dated 10th November 1852, No. 7295.

7. It is remarked that the Board's letter is dated 22d December 1853. The reports to which it gives cover relate to the cultivation of cotton in Fusly 1261 or the year ending 11th July 1852, or nearly 18 months before. The delay has occurred in consequence of the dilatoriness of some of the collectors. In one instance (Kurnool) the statement of the cotton cultivation, in the required form, was not furnished till November last. The Board will be pleased to enforce greater punctuality in the transmission of these reports and returns for the future. There seems no reason why they should not be furnished within three months after the close of the fusly to which they refer.

Fort St. George,
31 January 1854.

(signed) T. Pycroft,
Secretary to Government.

Ordered, in consequence, that the following letter be dispatched :—

(No. 137.)

From T. Pycroft, Esq., Secretary to Government, to A. Malet, Esq., Chief Secretary to the Government of Bombay.

Sir,

I AM directed by the Right Honourable the Governor in Council to acknowledge the receipt of your letter of the 10th November 1852, No. 7295, and to forward, as requested, a return furnished by the Board of Revenue, showing the extent of cotton cultivation and produce under this presidency. The statement applies strictly to the Fusly year 1262, but may be considered as an approximate estimate of the annual return that may be expected at the present time, under ordinary circumstances of the season.

Fort St. George,
31 January 1854.

(signed) T. Pycroft,
Secretary to Government.

Revenue Department.—18 May, No. 8, 1847.

II.
Madras.

OUR Governor in Council at Fort St. George.

Para. 1. WE desire that you will cause to be prepared for transmission to us, with the least possible delay, a statement of all the expenses that have been incurred under your Presidency for promoting the improvement of the cultivation of cotton since the arrival of the American planters up to the 30th April last, showing also any sums that may have been received for sales of cotton or cotton seed produced on the Government farms, or from the use of machinery, or on any other account.

2. We desire that a similar statement may be transmitted to us annually at the close of the official year.

We are, &c.
(signed) *H. St. G. Tucker.*
J. L. Lushington.
&c. &c.

London,
18 May 1847.

EXTRACT Revenue Letter from Fort St. George, dated 6 December,
No. 60, 1847.

Para. 5. We requested the Accountant General immediately to prepare and submit the statement required by your Honourable Court in the 1st para., and to bear in mind the requisition in the concluding paragraph, and we now transmit his reply,* furnishing the information called for; we also furnished a copy of this despatch to Dr. Wight for his information.

Letter, dated 18th May (No. 8) 1847.

(Entire.) Desire that they may be furnished, with the least possible delay, with a statement of all the expenses incurred for promoting the improvement of cultivation of cotton since the arrival of the American planters up to the 30th April last, showing also any sums that may have been received for sales of cotton, &c.; desire that a similar statement may be transmitted annually at the close of the official year.

Letter from *T. V. Stonhouse*, Esq., Accountant-general, to *J. F. Thomas*, Esq., Chief Secretary to Government.

Fort St. George
Revenue Cons.,
December 1847.

Sir,

WITH reference to the extract from the Minutes of Consultation, dated 6th July last, No. 770, in the Revenue Department, passed upon a letter from the Honourable Court of Directors, dated the 18th May last, requesting to be furnished with a statement of the expenses that have been incurred under this Presidency for promoting the improvement of cultivation of cotton since the arrival of the American planters, up to the 30th April last, showing also any sums that may have been received for sales of cotton, or cotton seed, produced on the Government farms, or from the use of machinery, or on any other account, I have now the honour to forward a statement of the expenses in question up to the 30th April 1847, showing an aggregate expenditure of *Co.'s Rs. (2,45,034. 14. 10.)*, two lacs, forty-five thousand and thirty-four, annas fourteen and pies ten, which is exclusive of an advance of *Rs. 5,830. 7. 8.* made to Mr. T. J. Finnie, cotton planter at Tinnevely, in April last, for purchasing cotton, &c.

Accompanying I beg to forward also a statement, showing the receipts by the sale of cotton and cotton seed, &c., and by ginning cotton in the farms, as well as the proceeds realised in England by the sale of the cotton consigned thither, amounting in the aggregate to *Co.'s Rs. 16,409. 4. 10.* This sum is exclusive of the proceeds which may have been realised by the sale of the cotton consigned per "*Lady Flora*," referred to in the concluding part of the 2d para. of my letter of the 10th July 1846, No. 283, and in the order of Government passed thereon of the 25th idem, No. 761, as well as in the 2d para. of my letter of the 9th June 1847, No. 210, the account sale for the consignment in question not having been received with those transmitted with the Honourable Court's letter of the 18th May 1847, communicated to this office with the extract from the Minutes of Consultation of the 6th July 1847, No. 769, in the Revenue Department.

In compliance with the instructions of the Honourable Court contained in the 2d para. of their despatch under reference, similar statements will be transmitted annually at the close of the official year.

(signed) *T. V. Stonhouse,*
Accountant-General.

Fort St. George,
Accountant-General's Office,
13 November 1847.

* Dated 13 November 1847 (No. 1360).

STATEMENT showing the DISBURSEMENTS, entered under every head of Charge, on account of the CULTIVATION of Cotton on the American System, in the Government Experimental Cotton-Farms in Coimbatore and Tinnevely, from the date of their Establishment up to the 30th April 1847.

	1840-41.	1841-42.	1842-43.	1843-44.	1844-45.	1845-46.	1846-47.	TOTAL.
	C. Rs. a. p.	C. Rs. a. p.	C. Rs. a. p.	C. Rs. a. p.	C. Rs. a. p.	C. Rs. a. p.	C. Rs. a. p.	C. Rs. a. p.
Consolidated salary of Capt. J. V. Hughes, superintendent of American cotton plantations	-	7,340 - 8	-	-	-	-	-	7,340 - 8
Salary of Surgeon Robert Wight, superintendent of ditto	-	-	4,725 -	4,200 -	3,832 13 11	4,200 -	4,200 -	21,157 13 11
Salary of Mr. H. Sherman, overseer and assistant superintendent of ditto	-	-	850 -	1,887 8	1,800 -	1,800 -	1,800 -	8,137 8
Salary of Mr. K. N. Cuxton, second assistant superintendent of ditto	-	-	-	-	-	-	783 13 11	783 13 11
Salaries of American cotton planters, including house rent	8,910 14 8	10,062 8	9,858 3 2	8,640 -	7,440 -	6,563 9 9	4,560 -	56,035 3 7
Travelling allowance and bakta to ditto	435 -	-	4,610 10 1	-	730 10 8	1,695 -	1,980 -	9,451 4 9
Gratuity awarded to Mr. James Morris, cotton planter	-	-	-	-	-	500 -	-	500 -
Salary of Mr. James Petrie, engineer, including horse and travelling allowance, &c.	-	-	2,206 10 8	3,076 14 5	3,119 7 5	3,460 -	3,600 -	15,462 - 6
Establishment of writers, goonastahs, conicopolies, &c.	9 12 11	1,023 12 6	1,513 4 11	1,531 8 9	1,573 2 8	1,174 -	1,556 -	8,381 9 9
Salaries of overseers	-	-	749 11 6	1,518 10 2	1,158 6 8	537 12 10	233 - 4	4,197 9 6
Pay and hire of labourers, smiths, coolies, &c.	-	-	5,660 13 4	6,067 6 4	3,709 13 8	3,440 1 11	3,622 11 6	22,500 14 9
Rent and profits on lands made over by ryots for cultivation of cotton	-	266 7 -	2,759 2 -	3,017 9 10	4,156 8 1	2,009 14 4	982 13 11	13,202 7 2
Cart and coolie hire, for conveying different articles from one station to another, ploughs, cattle, &c., purchased, hire of ploughs, charges for erection, and repairs of workshops, store-rooms, sheds, &c., and for feeding cattle, &c.	-	332 7 8	2,278 1 3	3,081 8 8	2,675 5 1	2,818 6 3	5,011 5 4	16,197 2 3
Salary of a dresser attached to the farms, including head money for medical assistance	-	-	250 11 9	478 8 -	453 14 -	397 14 -	377 15 1	1,958 14 10
Cart hire and packing charges incurred for conveying cotton and cotton seed to the Presidency for transmission to the Honourable Court of Directors	36 13 3	226 6 6	158 6 2	1,079 6 8	830 - -	540 - -	490 9 6	3,361 10 1
Expenses incurred in erecting a machine in the gin-house, and for construction and repairs of saw-gins and cotton-presses	-	-	-	-	446 1 11	430 11 1	1,275 10 4	2,152 7 4
Value of cotton purchased by Dr. Wight for the Honourable Court of Directors, including freight and shipping charges	-	-	-	-	-	-	11,681 4 4	11,681 4 4
Charges incurred by the Commissariat Department for hire of carts and bamboo coolies, &c., to convey saw-gins, &c.	156 8 3	148 6 2	3,992 - 2	18 3 -	420 1 -	-	-	4,735 2 7
Extra expenses incurred by ditto, on account of feeding, &c., of the public cattle employed in the cotton farms	-	1,527 13 9	5,814 8 3	7,195 5 7	3,488 12 11	1,594 11 2	-	19,621 3 8
Value of machinery, saw-gins, cotton-press, spare articles, &c., received from England for the use of the cotton farms	-	7,638 7 10	8,647 1 2	250 6 6	54 15 8	334 10 8	450 1 5	17,375 11 3
Value of a cotton machine called "Thrasher," purchased by Dr. Wight	-	-	-	-	800 - -	-	-	800 - -
TOTAL Cc.'s Rs.	9,549 1 1	28,566 6 1	54,084 4 5	42,042 15 11	36,690 1 8	31,496 12 -	42,605 5 8	245,034 14 10

(signed) G. L. Prendergast,
Deputy Accountant-General.

Fort St. George, Accountant-General's Office,
13 November 1847.

STATEMENT showing the Receipts on account of the Experimental Cotton Farms, from the Sales of Cotton, &c., up to the 30th April 1847.

II.
Madras.

Amount realized by the sale of cotton, cotton seed, paddy, &c.:							Rs.	a.	p.	Rs.	a.	p.
In 1843-44	-	-	-	-	-	-	649	4	2			
„ 1844-45	-	-	-	-	-	-	44	3	2			
										693	7	4
Amount realized by ginning cotton in the farms:												
In June 1844	-	-	-	-	-	-	11	1	5			
„ 1845-46	-	-	-	-	-	-	470	-	-			
„ 1846-47	-	-	-	-	-	-	1,130	-	-			
										1,611	1	5
Sale proceeds of cotton consigned to the Honourable Court of Directors, by the undermentioned vessels, as per Honourable Court's despatch, dated 26th November 1845, and 18th May 1847, and account sales therewith received:												
				£.	s.	d.						
Per "Flowers of Ugie"	-	-	-	53	10	2	570	12	1			
„ "Samarang"	-	-	-	95	5	10	1,016	7	1			
„ "Earl of Harewood"	-	-	-	240	7	11	2,564	8	7			
„ "John Patchett"	-	-	-	87	16	10	936	15	8			
										5,088	6	5
„ "Ino"	-	-	-	149	11	-	1,595	3	2			
„ "Earl of Harewood"	-	-	-	169	19	11	1,813	4	7			
„ "Grindlay"	-	-	-	81	18	9	874	-	-			
„ "Colonist"	-	-	-	168	14	-	1,799	7	6			
„ "Sir John Beresford"	-	-	-	275	2	-	2,934	6	5			
										9,016	5	8
							Rs.			16,409	4	10

Fort St. George, Accountant-General's Office,
13th November 1847.

(signed) T. V. Stonhouse,
Accountant-General.

Revenue Department, No. 45 of 1849.

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

WITH reference to the instructions communicated in your letter in this department, dated 18th May 1847, No. 8, we have the honour to submit statements furnished by the Accountant-General,* of expenses incurred on account of the Government experimental cotton farms, during the official years 1847-48, and 1848-49.

We have, &c.

(signed) Henry Pottinger.
D. Elliott.

Fort St. George, 3d September 1849.

EXTRACT Fort St. George Revenue Consultations, August 1848.

(No. 261.)

From T. V. Stonhouse, Esq., Accountant-General, to J. F. Thomas, Esq., Chief Secretary to Government.

Sir,

I HAVE the honour to transmit herewith two statements, one showing the expenses incurred on account of the cultivation of cotton on the American system in the Government experimental cotton farms, from May 1847 to April 1848, amounting to Co.'s Rs. (64,846. 9. 10.) sixty-four thousand eight hundred and forty-six, annas nine, and pies ten, and the other, showing the receipts by the sale of cotton and cotton seed, and by ginning cotton on the farms, amounting to Co.'s Rs. (2,695. 6. 10.) two thousand six hundred and ninety-five, annas six, and pice ten, both in continuation of those forwarded with my letter of the 13th November last, No. 401.

It is proper for me to mention that in the statement of expenses now forwarded is entered an item of Co.'s Rs. 21,450. 10. 10., being the sum charged in the accounts current

No. 31.

* Dated 15th August 1848 (No. 261); dated 20th August 1849 (No. 254).

II.
Madras.

current of Dr. Wight, on account of cotton purchased by him for the consignment to England, including freight and shipping charges, and that a similar charge of *Co.'s Rs.* 11,681. 4. 4. was exhibited in the statement forwarded with my letter above alluded to, both amounting to *Co.'s Rs.* 33,131. 15. 3. No account sales have been received in this office of the proceeds realised by these two consignments, as in case of the cotton shipped from the Sea Custom-house; and I would beg to suggest that a reference be made to the Honourable Court for the same, in order that an adjustment may be made on account of these consignments, to the credit of the head against which the cotton when purchased was debited.

(signed) *T. V. Stonhouse,*
Accountant-General.

Fort St. George, Accountant-General's Office,
15th August 1848.

STATEMENT showing the Disbursements entered under every head of Charges on account of the Cultivation of Cotton on the American System in the Government Experimental Cotton Farms in Coimbatore and Tinnevely, from 1st May 1847 to 30th April 1848.

	<i>Co.'s Rs. a. p.</i>
Salary of Surgeon Robert Wight, superintendent of the cotton farms, including additional allowance granted to him - - - -	7,811 4 -
Salary of Mr. H. Sherman, overseer and assistant superintendent of cotton farms - - - -	1,800 - -
Salary of Mr. R. N. Cuxton, second assistant superintendent of cotton farms - - - -	1,200 - -
Salary and allowances of Mr. T. J. Finnie, cotton planter, including batta - - - -	7,312 8 -
Gratuity awarded to Mr. Simpson, cotton planter - - - -	500 - -
Salary of Mr. James Petrie, engineer, including travelling allowance - -	1,335 3 1
Passage money to England of Mr. Petrie - - - -	1,200 - -
Establishment of writers, goomstahs, conicopolies, &c. - - - -	2,181 - -
Pay and hire of overseers, labourers, smiths, and coolies, and hire of carts and ploughs, &c.; ploughs, cattle, &c. purchased, including charges for feeding cattle and other contingencies - - - -	12,202 14 7
Salary of a dresser attached to the farms, including head money for medical assistance - - - -	456 7 8
Rents and profits on lands made over by ryots for the cultivation of cotton - - - -	1,307 7 9
Construction and repairs of machinery, implements, &c. - - - -	1,431 13 11
Value of a saw-gin purchased by Dr. Wight - - - -	496 9 8
Charges incurred by the commissariat department for hire of carts and bamboo coolies to convey saw-gins - - - -	362 2 11
Value of cotton purchased by Dr. Wight for the Honourable Court of Directors, including freight and shipping charges - - - -	21,450 10 10
Expenses incurred by Dr. Wight for visiting the port of Cochin, for ascertaining the means of having cotton screwed and shipped to England from that port - - - -	200 - -
Value of cotton machinery purchased by Mr. Finnie, including freight and charges on account of it - - - -	1,912 15 1
Value of articles received from England for the use of the cotton farms - - - -	1,685 8 4
<i>Co.'s Rs.</i>	64,846 9 10

(Errors excepted.)
(signed) *T. V. Stonhouse,*
Accountant-General.

Fort St. George, Accountant-General's Office,
15th August 1848.

STATEMENT showing the Receipts on account of the Experimental Cotton Farm, from the Sales of Cotton, &c., from 1st May 1847 to 30th April 1848.

	<i>Co.'s Rs. a. p.</i>
Amount realized by the sale of cotton and cotton seed - - - -	1,180 6 10
Amount realized by ginning cotton in the farms - - - -	1,515 - -
<i>Co.'s Rs.</i>	2,695 6 10

(Errors excepted.)
(signed) *T. V. Stonhouse,*
Accountant-General.

Fort St. George, Accountant-General's Office,
15th August 1848.

Revenue Department.—(No. 54 of 1850.)

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

Dated 26 September 1850 (No. 273) in Diary to Cons., 29 October (No. 273).

WITH reference to the instructions communicated in your letter in this department, dated 18th May 1847, No. 8, we have the honour to submit statements, furnished by the Accountant-general, of expenses incurred on account of the experimental cotton farms, from May 1849 to April 1850.

We have, &c.

(signed) *Henry Pottinger.*
D. Elliott.
E. B. Thomas.

Fort St. George, 30 October 1850.

EXTRACT Fort St. George Revenue Consultations, October 1850.

(No. 273.)

From Sir *Vansittart Stonhouse*, Bart., Accountant-General, to Sir *H. C. Montgomery*, Bart., Chief Secretary to Government; dated 26 September 1850.

No. 9.

Sir,

I HAVE the honour to transmit herewith two statements, one showing the expenses incurred on account of the cultivation of cotton on the American system, in the Government experimental cotton farms, from May 1849 to April 1850, amounting to Company's rupees (45,922. 2.) forty-five thousand nine hundred and twenty-two, and annas two, and the other showing the receipts by the sale of cotton and cotton seed, and by ginning cotton, amounting to Company's rupees (2,229. 15. 11.) two thousand two hundred and twenty-nine, annas fifteen, and pies eleven, both in continuation of those forwarded with my letter of the 20th August 1849, No. 254.

(signed) *V. Stonhouse,*
Accountant-General.

STATEMENT showing the Disbursements entered under every head of Charges on account of the Cultivation of Cotton on the American System in the Government Experimental Cotton Farms in Coimbatore and Tinnevely, from 1 May 1849 to 30 April 1850.

	Co.'s Rs. a. p.
Salary of Surgeon Robert Wight, superintendent of the cotton farms, including additional allowance granted to him	7,811 4 -
Salary of Mr. H. Sherman, overseer and assistant superintendent of cotton farms	1,800 - -
Salary of Mr. R. N. Cuxton, second assistant-superintendent of cotton farms, including travelling allowance	1,144 9 -
Salary of Mr. T. James Finnie, cotton planter	4,493 8 9
Establishment of writers, goomastahs, conicopolies, &c., including gratuity awarded to men attached to the cotton farms	1,527 11 6
Pay and hire of overseers, labourers, smiths, and coolies, and hire of carts and ploughs, &c.; ploughs, cotton, &c. purchased, including charges for feeding cattle, and other contingencies	7,596 9 11
Salary of a dresser attached to the farms, including head-money for medical assistance	178 3 8
Construction and repairs of machinery, implements, &c.	813 15 2
Value of cotton purchased by Dr. Wight for the Honourable Court of Directors, including freight and shipping charges	20,556 4 -
Co.'s Rs.	45,922 2 -

(Errors excepted).

Fort St. George,
Accountant-General's Office,
26 September 1850.

(signed) *T. V. Stonhouse,*
Accountant-General.

STATEMENT showing the Receipts on account of the Experimental Cotton Farms from the Sales of Cotton, &c., from 1 May 1849 to 30 April 1850.

	<i>Co.'s Rs. a. p</i>
Amount realised by the sale of cotton and cotton seed - - - -	1,689 15 11
Amount realised by ginning cotton in the farms - - - -	540 - -
<i>Co.'s Rs.</i>	2,229 15 11

(Errors excepted.)

Fort St. George,
Accountant-General's Office,
26 September 1850.

(signed) *V. Stonhouse,*
Accountant-General.

Revenue Department.—(No. 64 of 1851.)

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

WITH reference to the instructions communicated in your letter in this department, dated 18th May 1847, No. 8, we have the honour to submit statements furnished by the Accountant-general of expenses and receipts on account of the experimental cotton farms, from May 1850 to April 1851; the former amounting to Rs. 66,391. 14. 8., including the sum Rs. 43,407. 12. 5., expended in the purchase and shipment of cotton; the latter to Rs. 3,962. 10.

Dated 28 October
1851 (No. 313).
In Cons. 11 No-
vember 1851 (Nos.
63, 64).

We have, &c.
(signed) *Henry Pottinger.*
R. Armstrong.
D. Elliott.
E. B. Thomas.

Fort St. George, 18 November 1851.

EXTRACT Fort St. George Revenue Consultations, 11 November 1851.

From Sir *Vansittart Stonhouse*, Baronet, Accountant-General, to Sir *H. C. Montgomery*,
Baronet, Chief Secretary to Government.

No. 63.

Sir,

I HAVE the honour to transmit herewith two statements, one showing the expenses incurred on account of the cultivation of cotton on the American system in the Government experimental cotton farms, from May 1850 to April 1851, amounting to Company's rupees (66,391. 14. 8.) sixty-six thousand three hundred and ninety-one, annas fourteen, and pice eight; and the other showing the receipts by the sale of cotton and cotton seed, and by ginning cotton during the same period, amounting to Company's rupees (3,962. 10.) three thousand six hundred and ninety-two, and annas ten, both in continuation of those forwarded with my letter of the 26th September 1850, No. 273.

Fort St. George,
Accountant-General's Office,
28 October 1851.

(signed) *T. V. Stonhouse,*
Accountant-General.

II.
Madras.

STATEMENT showing the Disbursements entered under every head of Charge on account of Cultivation of Cotton on the American System, in the Government Experimental Cotton Farms in Coimbatore and Tinnevely, from 1 May 1850 to 30 April 1851.

	Co.'s Rs. a. p.
Salary of Surgeon Robert Wight, superintendent of the cotton farms, including additional allowance granted to him	7,811 4 -
Salary of Mr. H. Sherman, overseer and assistant-superintendent of the cotton farms	1,800 - -
Salary of Mr. R. N. Cuxton, second assistant-superintendent of ditto	1,933 13 11
Establishment of writers, goomastahs, conocoplies, &c., attached to the cotton farms	994 - -
Pay and hire of overseers, labourers, smiths, and coolies, and hire of carts and ploughs, &c.; ploughs, cattle, &c., purchased, including charges for feeding cattle, and other contingencies	7,151 12 -
Amount of head-money for medical assistance	59 10 4
Construction and repairs of machinery, implements, &c.	547 10 1
Construction of a gin-house at Sevacausey	2,685 15 11
Value of cotton purchased by Dr. Wight for the Honourable Court of Directors, including freight and shipping charges	43,407 12 5
Co.'s Rs.	66,391 14 8

(Errors excepted.)

Fort St. George,
Accountant-General's Office,
28 October 1851.

(signed) T. V. Stonhouse,
Accountant-General.

STATEMENT showing the Receipts on account of the Experimental Cotton Farms from the Sales of Cotton, &c., from 1 May 1850 to 30 April 1851.

	Co.'s Rs. a. p.
Amount realised by the sale of cotton and cotton seed	674 10 -
Amount realised in ginning cotton in the farms	3,018 - -
Co.'s Rs.	3,692 - -

(Errors excepted.)

Fort St. George,
Accountant-General's Office,
28 October 1851.

(signed) T. V. Stonhouse,
Accountant-General.

EXTRACT Revenue Letter from Fort St. George, dated 17 January (No. 4) 1853.

Para. 1. WITH reference to the instructions communicated in your letter in this department, dated 18th May 1847, No. 8, we have the honour to submit statements furnished by the Accountant-general of expenses and receipts on account of the experimental cotton farms, from May 1851 to April 1852; the former amounting to Rs. 30,338. 8. 10., the latter to Rs. 5,470. 6. 7.

EXTRACT Fort St. George Revenue Consultations, 21 December 1852.

(No. 321.)

No. 68. From Sir Vansittart Stonhouse, Bart., Accountant-General, to Sir H. C. Montgomery, Bart., Chief Secretary to Government.

Sir,

I HAVE the honour to transmit herewith two statements, one showing the expenses incurred on account of the cultivation of cotton on the American system in the Government experimental cotton farms, from May 1851 to April 1852, amounting to Company's rupees (30,338. 8. 10.) thirty thousand three hundred and thirty-eight, annas eight, and pice ten; and the other showing the receipts by the sale of cotton and cotton seeds, ginning cotton, cotton saw-gins, and other articles, during the same period, amounting to Company's rupees (5,470. 6. 7.) five thousand four hundred and seventy, annas six, and pices even, both in continuation of those forwarded with my letter of the 28th October 1851, No. 313.

With regard to the sum of Rs. 218. 13. 9., exhibited in the statement of charges, it is necessary to explain that the value of cotton seeds supplied to Messrs. Kenrick and Morrison has

has been repaid to Dr. Wight, and that Government is aware that the value of cotton seeds supplied to the Commissioner of Mooltan has been remitted by a bill, which has been adjusted in the accounts of the sub-treasurer. The value of the cotton seeds supplied to Bengal and to the Ceylon Government will be debited to those governments, and the above-mentioned sum of Rs. 218. 13. 9. will appear in the statement to be furnished for the current official year, with other sums as receipts appertaining to that year.

Fort St. George,
Accountant-General's Office,
7 December 1852.

(signed) T. V. Stonhouse,
Accountant-General.

STATEMENT showing the Disbursements entered under every head of Charge on account of Cultivation of Cotton on the American System, in the Government Experimental Cotton Farms in Coimbatore and Tinnevely, from 1 May 1851 to 30 April 1852.

	Co.'s Rs. a. p.	Co.'s Rs. a. p.
Salary of Surgeon Robert Wight, superintendent of the cotton farms, from April 1851 to March 1852 - -	4,200 - -	
Additional allowance granted to Dr. Wight, being the difference between the allowance drawn by him and that of a superintending surgeon - - - -	902 13 -	
Ditto ditto, being the difference between the allowance drawn by him and that of a member of the Medical Board - - - -	13,847 8 -	
Salary of Mr. H. M. Sherman, overseer and assistant superintendent of cotton farms, from April to July 1851, including gratuity of three months' salary paid to him -	- - -	18,950 5 -
Salary of Mr. H. N. Cuxton, 2d assistant to the superintendent, from April 1851 to March 1852 - - -	- - -	1,050 - -
Pay and hire of overseers, labourers, smiths, coolies, and hire of carts, ploughs, &c., including charges for feeding cattle and other contingencies - - - -	- - -	1,800 - -
Establishment of writers, gomashas, conicopolies, &c. -	- - -	2,700 6 10
Value of cotton purchased by Dr. Wight for the Honourable Court of Directors, including freight and shipping charges - - - -	- - -	736 - -
		4,882 15 3
Value of Cotton Seeds forwarded to the following officers, &c., including charges :—		
Secretary to the Government of Bengal - - - -	82 13 -	
Commissioner Mooltan - - - -	46 6 10	
Ceylon Government - - - -	27 5 3	
Mr. Kenrick, of Madras - - - -	23 - -	
Mr. Morrison, of Madras - - - -	42 14 8	
		218 13 9
	Co.'s Rs.	30,338 8 10

Fort St. George,
Accountant-General's Office,
7 December 1852.

(Errors excepted.)
(signed) T. V. Stonhouse,
Accountant-General.

STATEMENT showing the Receipts on account of the Experimental Cotton Farms from the Sales of Cotton, &c., from May 1851 to April 1852.

	Co.'s Rs. a. p.
Amount realised by the sale of cotton and cotton seed - - -	4,206 14 8
Amount realised by the sale of cotton saw-gins, and other articles -	801 7 11
Amount of prize awarded by the Agri-Horticultural Society for cotton grown in the farms - - - -	240 - -
	Co.'s Rs.
	5,470 6 7

(Errors excepted.)

Fort St. George,
Accountant-General's Office,
7 December 1852.

(signed) T. V. Stonhouse,
Accountant-General.

II.
Madras.

EXTRACT Revenue Letter from Fort St. George, dated 3 April (No. 16) 1854.

Para. 2. WE have also the honour to submit copies of correspondence* regarding the late cotton experiments under this presidency, together with statements furnished by the Accountant-general of expenses and receipts on their account, from May 1852 to April 1853, the former amounting to Rs. 28,514. 5. 8., the latter to Rs. 343. 14. 10.

EXTRACT Fort St. George Revenue Diary to Consultation of 6 January 1854.

Received the following letter :

(No. 349.)

No. 40. From Sir Vansittart Stonhouse, Bart., Accountant-General, to Sir H. C. Montgomery, Bart., Chief Secretary to Government.

Sir,

I HAVE the honour to transmit herewith two statements, one showing the expenses incurred on account of the cultivation of cotton on the American system in the Government experimental cotton farms, from May 1852 to April 1853, amounting to Co.'s Rs. (28,514. 5. 8.) twenty-eight thousand five hundred and fourteen, annas five, and pies eight; and the other showing the receipts connected with the farms during the same period, amounting to Co.'s Rs. (343. 14. 10.) three hundred and forty-three, annas fourteen, and pies ten, both in continuation of those forwarded with my letter of the 7th December 1852 (No. 321.)

Fort St. George,
Accountant-General's Office,
19 December 1853.

(signed) T. V. Stonhouse,
Accountant-General.

STATEMENT showing the Disbursements entered under every head of Charge, on account of Cultivation of Cotton on the American System in the Government Experimental Cotton Farms in Coimbatore and Tinnevely, from 1 May 1852 to 30 April 1853.

	Co.'s Rs. a. p.	Co.'s Rs. a. p.
Salary of Surgeon Robert Wight, superintendent of the cotton farms, from April 1852 to January 1853	3,500 - -	
Additional allowance granted to Dr. Wight, being the difference between the allowances drawn by him and that of a member of the Medical Board, from do. to do.	12,109 6 -	
		15,609 6 -
Salary of Mr. R. N. Cuxton, 2d assistant to the superintendent, from April 1852 to March 1853	1,800 - -	
Ditto of head writer and smith, including batta, &c. to them	844 2 -	
Gratuity to C. Cramer, late overseer	60 - -	
Pay and hire of overseers, labourers, coolies, &c., and hire of carts and ploughs, including charges for feeding cattle and other contingencies	1,963 1 3	
Value of cotton purchased by Dr. Wight for the Honourable Court of Directors, including freight and shipping charges	8,199 12 1	
Charges of cotton seed supplied to Messrs. Maxwell and Graham	5 3 2	
Value of cotton seeds forwarded to Bengal, including charges	32 13 2	
	Co.'s Rs.	28,514 5 8

(Errors excepted.)

Fort St. George,
Accountant-General's Office,
19 December 1853.

(signed) T. V. Stonhouse,
Accountant-general.

* Cons. 15th April 1853 (Nos. 37, 38); Cons. 5th July 1853 (Nos. 72, 73); Cons. 9th August 1853 (Nos. 30, 31); Cons. 16th August 1853 (Nos. 46, 47); Cons. 30th August 1853 (Nos. 1, 2); Cons. 20th September 1853 (Nos. 22, 23); Cons. 20th September 1853 (Nos. 47, 48); Cons. 18th October 1853 (Nos. 9, 10); Cons. 6th January 1854 (No. 40, 41.)

STATEMENT showing the Receipts on account of the Experimental Cotton Farms from the Sales of Cotton, &c., from May 1852 to April 1853.

	Co.'s Rs.	a.	p.
Recovery on account of charges incurred in forwarding Cotton Seeds to the following gentlemen :—			
Supplied to Mr. Kenrick, at Madras, in last year	23	—	—
Ditto to Mr. Morison, at Palavanair, in ditto	42	4	8
Ditto to Mr. Maxwell, at Trichinopoly, in this year	2	—	—
Ditto to Mr. Graham, at Tellicherry, in ditto	3	3	2
Value of Cotton Seed supplied to the following Governments :—			
Supplied to the Bengal Government in last year	82	13	—
Ditto to the ditto in this year	32	13	2
Ditto to the Ceylon Government in last year	27	5	3
Ditto to the Commissioner Moulton, in ditto	43	6	10
Sale proceeds of wrapper cloth, of cotton loads	62	1	—
Value of cotton seed sold	24	15	9
Co.'s Rs.	343	14	10

Fort St. George,
Accountant-General's Office,
19 December 1853.

Errors excepted, per
(signed)

T. V. Stonhouse,
Accountant-General.

Revenue Department, 2 June (No. 10) 1847.

Our Governor in Council at Fort St. George.

Para. 1. * WE have informed you in our military despatch of the 21st April last (No. 25), para. 64, that we concurred in your decision as to the ineligibility of Dr. Wight for promotion to the rank of superintending surgeon under the regulations of the service.

Allowances of Dr. Wight, Superintendent of Cotton Farms in Coimbatore.

2. The circumstance of his not having served the prescribed time in the military branch of his profession, to qualify him for that appointment, has been occasioned by his having been employed under your orders, on a duty for which he possesses peculiar qualifications, and which it is desirable that he should continue to discharge, and we think that this gives him a fair claim to consideration. We accordingly authorise you to grant him an additional allowance equivalent to the difference between his present pay and that of a superintending surgeon, from the date on which he would otherwise have been eligible for promotion to that rank.

Present pay Rs. 1,239. 1. per mensem; pay of superintending surgeon, Rs. 1,540. per mensem.

London, 2 June 1847.

We are, &c.
(signed) H. St. G. Tucker.
J. L. Lushington.
&c. &c.

Revenue Department, 14 July (No. 16) 1847.

Our Governor in Council at Fort St. George.

Para. 1. THE letters referred to in the margin † report your proceedings relative to experimental cotton cultivation.

2: With reference to the question submitted to us in the first of these letters, as to the continuance of the experiment under Dr. Wight, we have to observe that we should be unwilling to sanction any measure likely to impede that officer's

* Letter, dated 14th November (No. 54) 1846, submitting a claim preferred by Dr. Wight, Superintendent of the Cotton Farms at Coimbatore, to the Office of Superintending Surgeon, or to the allowances of that office.

† Letters, dated 8th December (No. 62) 1845; dated 25th July (No. 35) 1846; dated 27th March (No. 17) 1847.

officer's attempts to improve the quality of the cotton of Coimbatore, or to prevent the further progress and probable success of the experiment which may be anticipated from the experience which he has acquired. The results exhibited in his reports of the 1st August 1845, and 16th February 1846, are very encouraging, and you will have learnt from the account sales forwarded to you with our despatch of the 18th May last (No. 6), that the prices realised for the cotton produced in that district have been satisfactory.

3. We have perused with much interest the accounts given by Mr. Wroughton, principal collector of Coimbatore, of the success of his experimental operations at Ootacamund, and we consider that much credit is due to him for his persevering exertions.

4. We authorise you to reimburse Dr. Wight the sum of Rs. 200 (two hundred rupees), being the amount stated to have been expended by him in visiting the Port of Cochin, for the purpose of ascertaining the means of having cotton screwed and shipped to England from that port.

5. The decease of Mr. Morris, the cotton planter, whom you had located in Bellary, is matter of great regret. The measures which he had proposed to adopt in that district would, we think, have led to satisfactory results.

6. We notice with satisfaction the interest taken by the Zemindar of Yettia-pooram, in the improvement of the cotton produced on his estate, and we approve of your having communicated to him the view taken of his proceedings.

7. In our despatch of the 18th May last (No. 6), we have noticed the needless expense incurred in consequence of a portion of the cotton shipped per "Grindlay," having been sent in an unscrewed state. We observe that the cause of this is explained in the letter from Mr. Morris, Acting Collector of Customs, dated the 10th July 1846, and we trust that a similar inadvertence will not again occur.

8. The deputation of Mr. Finney into Tinnevelly appears, from the papers forwarded with your letter of the 27th March (No. 17) 1847, to be likely to be attended with satisfactory results. Under the circumstances represented by you, we approve of your having authorised that gentleman to act as a general agent for the purchase of cotton, subject to the future reports of the collector of Tinnevelly as to the effects of the permission thus granted to him. The principal difficulty which he appears to have had to encounter in the first instance, in inducing the ryots to improve their modes of cultivation, and to use a better description of seed, was in the apprehension which they expressed, that they should be unable to find a market for their produce. Mr. Finnie will be in a great measure enabled to remove this apprehension under the authority now given to him to purchase cotton, and the real price at which good cotton can be procured in the district will be more satisfactorily ascertained by means of purchases made on private accounts than on purchases on account of Government. Mr. Finnie himself states that as soon as it was believed in the district that he was authorised to make purchases of cotton on account of Government, an increased price was immediately demanded.

9. We approve of your having authorised the purchase of four or five hundred bales of churka-cleaned native cotton to be subjected to the action of the thresher, and then baled and sent to us, with the view of ascertaining the advantages to be derived from that process. It would be satisfactory if you could at the same time send us an equal quantity of precisely the same description of cotton, cleaned by the saw-gin, with an accurate account of the expenses incurred on each, so that we might be enabled to judge from their out-turn in this country which of the two processes is, in a commercial point of view, the more advantageous.

We are, &c.

(signed) *H. St. G. Tucker.*

J. L. Lushington.

&c. &c.

London, 14 July 1847.

EXTRACT Revenue Letter from Fort St. George, 16 July (No. 42) 1847.

II.
Madras.

18. We furnished * a copy of this despatch to Dr. Wight, with reference to his letters of the 30th and 31st October 1846, and called his attention to the suggestions communicated in the letter from the President of the Manchester Commercial Association. Dr. Wight has informed us in answer,† that he received a copy of that letter direct from the Secretary at the India House, and that he had replied to it through the same channel.

Revenue Department, Coimbatore, 5 May 1847.

From Surgeon *R. Wight*, Superintendent of Cotton Farms, Coimbatore, to Sir
H. C. Montgomery, Bart., Secretary to Government, Fort St. George.

Sir,

WITH reference to Extract Minutes of Consultation, No. 498, under date 22d April 1847, transmitting copy of a letter from the President of the Manchester Commercial Association, I have the honour to state, for the information of the Most Noble the Governor in Council, that I received a copy of that letter direct, through the Secretary, from the India House, and have replied through the same channel. Copy of my letter I have the honour to sub-join.

(signed) *Robert Wight*, Surgeon,
Superintendent Cotton Farms.

To Sir *H. C. Montgomery*, Bart., Secretary to Government, Fort St. George, to
J. C. Melville, Esq., Secretary, India House, London.

Sir,

I HAVE the honour to acknowledge the receipt of your letter of the 8th February, transmitting extract from a letter from *J. A. Turner*, Esquire, President of the Commercial Association of Manchester, to Sir *J. Weir Hogg*, Bart., M.P., Chairman of the Court of Directors of the East India Company, dated 5th February 1847.

2. It is a source of gratification to learn that the American cotton grown on the Coimbatore farms has been found superior to any of the same description grown in India. This is no doubt partly owing to the suitable selection of the sowing season, a point which has received much consideration, but is also partly owing to local circumstances.

3. Our farms are situated in an extensive valley, participating in the rains of both monsoons, by which we are enabled so to regulate the time of sowing with the one, as to have the plant coming into bloom about the time when the other usually commences, which invigorates and fits it to bring its crop to maturity during the subsequent dry season.

4. Mr. Turner's suggestions regarding earlier sowing has not escaped observation, and has been tried, but in a great measure failed. But, supposing that case had been otherwise, it rarely happens that it could be practised, at least in this district, as the rains seldom reach us before the middle of May, and often not until June, in sufficient quantity to admit of our parched and sun-baked lands being sufficiently prepared for the reception of seed before the first week or even in the middle of July, which is as soon as sowing should commence.

5. During the hot season the soil becomes so hard that the plough cannot penetrate the surface until it has been softened and loosened by copious showers; it then requires to be ploughed two or three times to clean it thoroughly before sowing; this keeps us employed from a month to six weeks, that is, until about the middle of July. This I consider the best time for sowing, as the plant, which is of rapid growth, then comes into flower about the time the north-east monsoon commences, in October.

6. If it is sown earlier, so that the cotton bolls are far advanced towards maturity when these rains commence, nearly the whole of the earlier part of the crop is lost, owing to the plant becoming surcharged with sap, which the cotton seems to absorb, and in place of coming to proper maturity, rots in the capsule; we have repeatedly had to regret extensive losses from that cause.

7. Such

* Letter, dated 3d March 1847. (No. 3.) (Whole.) Intimate the supply of hoes, files, and American cotton seed for the use of the superintendent of cotton farms at Coimbatore. Transmit a letter received from the President of the "Manchester Commercial Association," on the subject of cotton cultivation, and direct that Dr. Wight's attention be called to the suggestions therein contained.

† 18th May 1847 (Nos. 41, 42.)

II.
Madras.

7. Such being the case, our object is so to adapt the sowing to the course of the seasons as to secure as far as possible a continuance of humid weather for the plant, so long as it is growing, and dry clear weather for maturing and harvesting the crop. If we are fortunate in enjoying an average season, our lands yield, according to the quality of the soil, from 500 to 1,000 or even 1,200 pounds per acre of American seed cotton. The native Indian plant is much less productive.

8. As suggested by Mr. Turner, I have also tried low alluvial lands, but the return proved quite disproportioned to the previous appearance, and simply from the lands being too humid, or, in other words, owing to the wet subsoil producing nearly the same effect on the crop as rainy weather on higher and dryer lands.

9. Adverting to Mr. Turner's remark of the more silky staple of American than Indian grown cotton of the same description, I may remark that this fact is known to us, and has engaged much attention with a view to ascertain the cause and probable remedy; at first the climate was supposed to have some effect in producing the change from soft silkiness to harshness of fibre; more extended observation has led to the conclusion that soil has more to do with the change than the climate.

10. It is well known to the native cotton dealers that cotton grown on black cotton ground has a longer and softer staple than when grown on red gravelly soil, the kind on which our American cotton is principally and most successfully cultivated, especially when calcareous matter forms a prominent ingredient. Reasoning from these facts, I was induced to try low alluvial soil, as more nearly approaching to the best American soils than either our black clays or gravelly soils, and to a certain extent established the position that the cotton produced on such soils was of excellent quality, but the crop is very uncertain, as a single unseasonable shower of rain, by loading the soil with excess of moisture, was liable to deteriorate half the crop, then approaching to maturity. I, however, coincide in the view taken by the Association as to the probable advantage to be derived from cultivating cotton on lands near the coast, and have long felt anxious to have a farm established there for the cultivation of American cotton. Hitherto the plan has been beset with difficulties which I have not been able to surmount; but now it is in progress, as Mr. Finnie is located in the centre of one of the best cotton districts in the South of India, within about 40 miles of the sea, on the east coast, and will, I trust, succeed in finding cultivators probably to within a few miles of the shore, and I am not without the hope of being able to make arrangements for the culture of a few fields between Palghaut and the west coast. But so far as my acquaintance with that coast extends, we need scarcely expect to approach nearer than within 60 or 70 miles of the shore, there being so little land suitable for the cultivation of cotton within that limit.

11. I trust that in these brief notes I have yet been sufficiently explicit to satisfy both the Honourable Court and the Association that constant attention has been given towards the careful working out, in all its branches, of this experiment, and that the results already obtained are such as to satisfy the latter that all that is now required to bring it to a most successful conclusion is commercial encouragement, by the establishment of agents altogether distinct from Government, to contract with the ryots to cultivate American cotton for them. They are now doing so for us, of their own free will, though still apparently jealous of Government interference; merely because they find it profitable to do so. Dealing with merchants will remove that objection, and in the course of a few years lead to the general introduction of the exotic, which I believe they are quite satisfied can be grown as easily and cheaply as their own, and much more profitably both as regards the out-turn from equal areas of land, and the price it realises. The present has proved one of the most unfavourable cotton seasons that has been known for many years in this part of India, the crops of native cotton having almost universally failed, while the few natives whom we succeeded in inducing to sow American cotton at the same time with ourselves have realised very fair returns, better indeed than they usually obtain in good seasons from the indigenous plant. This very unlooked-for result will doubtless establish its credit beyond dispute, and stimulate its extended culture.

(signed) R. Wight, Surgeon,

Coimbatore, Superintendent Cotton Farms.

8 April 1847.

Revenue Department, 14 January (No. 7) 1848.

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

1. WE have the honour to submit copies of communications from Dr. Wight, Superintendent of the Experimental Cotton Farms at Coimbatore, and of minutes recorded by the members of Government, on the proposition of that officer to grant

grant a remission of 50 per cent. in the assessment of lands applied to the cultivation of American cotton; and, on his further suggestion, to have two additional farms, one on each coast.

2. We have deemed it expedient to bring this correspondence under the consideration of your Honourable Court, and, with reference to the views of the members of Government, recorded in the minutes under transmission, to solicit your orders, whether the Government experimental cotton farm at present maintained at Coimbatore shall, as proposed by the majority, be relinquished for an agency confined to practical planters.

3. We beg to call the particular attention of your Honourable Court to the minute of our President, and to the useful information on the whole subject noticed therein, as received from Mr. Finnie, American cotton planter, employed in the Tinnevely district.

We have, &c.

(signed) *Tweeddale.*

H. Chamier.

Fort St. George,

14 January 1848.

J. P. Dickinson.

From Surgeon *R. Wight*, Superintendent of Cotton Farms, Coimbatore, to Sir
H. C. Montgomery, Bart., Secretary to Government, Fort St. George.

Sir,

I HAVE the honour herewith to transmit copies of correspondence which passed between the Principal Collector of Coimbatore and myself on the subject of granting remissions of land assessment on lands under American cotton cultivation.

2. My letter originated partly in the circumstance of Mr. Wroughton having in the course of conversation informed me that he had authority to grant such remission without further reference to Government, but principally in the belief that many ryots would cultivate it if this indulgence was granted, generated by what passed in various conversations with them, and with numerous small merchants who are in the habit of bringing their cotton to the gin-house for sale, when endeavouring to persuade them to grow American cotton in place of opium, assigning as the ground of my recommendation that I expected orders from England prohibiting the purchase of the latter next year.

3. This kind of conversation was of course entered into merely as a means of inducing them to make the attempt, the idea being suggested from having found by the continued stream in that direction that they considered the gin-house their best customer and the most honourable merchant to deal with.

4. On these occasions the risk of failure with a new article, the culture of which they profess not to understand, and in that case the loss of the land assessment, which must be paid if the ground is ploughed, added to their poverty, and consequent incapacity to speculate, has always been urged as a reason for not making the attempt. They listened to what I urged on the comparative advantages of receiving nine rupees for the same weight of the new cotton that I was then paying seven rupees for of the old, and that too during a dear season (from six to six and a quarter rupees is the price in ordinary seasons); but still the pecuniary loss, which they say they could ill afford, on the one hand, seemed always to overbalance the problematical advantage on the other.

5. I mention these circumstances, partly to show the difficulty to be surmounted, and partly in explanation of my reasons for thinking that Mr. Wroughton's opinion, as stated in the marginal extract from his letter to Government, is not borne out in practice, since we have actually paid 18 rupees per candy for several small batches of American cotton in place of Rs. 17. 8, assumed by him as holding out a sufficient inducement to insure an extended cultivation of the American plant, and have, moreover, promised that enhanced price for all the "first sort" American cotton offered for sale, with a proportionally high price for inferior description.

6. The orders of Government, conveyed in the appended letter to Mr. Wroughton, having taken from him the privilege of granting remission, I have been induced, after much consideration, to take the liberty of soliciting the attention of the Most Noble the Governor in Council to these statements, in the hope that they may have the effect of inducing his Lordship to reconsider the subject, and perhaps see the propriety of recalling that order and renewing the former one, which I apprehend would, now that a certain market is opened for the disposal of the article, be taken immediate and extensive advantage of by growers here, though, while that was wanting, and they were unacquainted with the new plant, they allow it to remain in abeyance, if indeed they were really aware of its existence. For myself, I

was not aware of its existence, nor, to the best of my knowledge, has it ever been promulgated, or a single case of remission been granted during the six years I have been in the district, though several of the more enterprising ryots have been induced to cultivate small patches. Had the orders of Government been annually promulgated since 1833, as it appears to me they ought to have been, and remissions regularly granted to all those who cultivated American cotton, I feel assured beneficial effect would have resulted, and still think that were these orders now received, and annually and efficiently promulgated, extensive advantage would be taken of them, at least in this neighbourhood, where the people have become familiar with the plant and its mode of culture.

7. Regarding the confusion and irregularity referred to in Mr. Wroughton's letter, likely to be produced in a system which has hitherto worked well, by the introduction of such an arrangement, it does not become me to offer an opinion, not being conversant with such matters; but it occurs to me, that the mere apprehension of confusion should not have been permitted so long to impede the accomplishment of an object so vastly important to the empire at large, and for the attainment of which the Home Government is so anxious, and has incurred such liberal expenditure. Great Britain pays annually nearly 10 millions sterling to America for cotton, while the latter, ungratefully taking advantage of our necessities, maintains almost prohibitory tariffs on our manufactured goods offered in exchange for her raw material, a state of things doubly disadvantageous to Britain, and one that her colonies might, with due encouragement, do much to obviate.

8. In a letter to the Secretary to the Manchester Association, forwarded through the Secretary to the India House, I gave a tabular statement, copy of which I subjoin, showing, that at present prices the better description of Indian cotton cannot be delivered in Liverpool under $3\frac{1}{2}$ d. the pound, a rate at which America can compete, furnishing at the same time a better article, and in quantities nearly adequate to the wants of Britain. In this part of India the land tax absorbs from 25 to 30 per cent. of the net produce, leaving seed, labour, and risk from unfavourable seasons and fluctuating markets to be provided for out of the balance. This great drawback necessarily restricts its cultivation; for being a crop requiring a good deal of labour and time, and being uncertain in its returns, as it can only be employed to a limited extent for home consumption, cereal or food cultivation, which does not labour under that disadvantage, is preferred, and generally only so much cotton as may be readily converted into ready money to pay the Government tax is grown, and that I have repeatedly heard, and I believe truly asserted, often at a loss; such being the case, it seems probable that a reduction of 50 per cent. of the assessment on all lands under cotton cultivation would, by securing an almost certain profit to the cultivator, immediately act on Southern India as beneficially as the establishment of cotton manufactures has acted on England herself, for by providing in the intervals between seed time and harvest of their food crops, a stimulus to industry as well as occupation for her rural population, in the production of an exportable article of commerce, it would enrich both them and the country by augmenting external commerce.

9. Her best cottons, including American, could then be delivered in England at from $2\frac{1}{2}$ d. to 3 d. the pound, with a profit to the exporter; a rate of charge which would defy competition, and thereby force, if I may use so strong a term, the stream of British commerce towards her shores, which by ensuring augmented and certain profits, would rapidly stimulate a production of cotton adequate to her annually increasing wants. It would then become to Southern India what it formerly was, and what indigo and opium now are to Northern, an unfailing source of industry and wealth, while Britain would not have to complain of the restriction of her commerce by hostile tariffs.

10. An ancient maxim, applicable to the living frame, informs us that where irritation exists, thither you will find a determination of blood. The same maxim, thus modified, is equally applicable to the body politic; "Where wealth is, there you will find shops;" and, in like manner, as a sore on the finger may affect the general health, so may the enticing contents of a few well-stored shops affect the industrial habits of a whole community, by creating new wants and exciting new desires, suited to stimulate the industry of both the ambitious and indolent. Such would soon be the effect in India of the unlimited introduction of British manufactures in exchange for our raw material.

11. Though, however, financial considerations will probably for a long time prevent the adoption of a general measure of the kind suggested, I trust I have been so far fortunate in my advocacy of the general principle as to have succeeded in inducing his Lordship in Council to reconsider his late decision, and probably even to renew for a further period of five or ten years the orders of 1833, granting 50 per cent. remission on all land under American cotton cultivation.

Coimbatore, 20 June 1847. (signed) Robert Wight,
Surgeon, Superintendent Cotton Farms.

OOPUM COTTON.

	<i>Rs.</i>	<i>a.</i>	<i>p.</i>
1. Amount cost of 846 candies, 11 maunds, 13 lbs. of seed cotton, at <i>Rs.</i> 13. 4. per candy of 500 lbs. -	11,025	11	4
Amount of expenses incurred in clearing, half-pressing, forwarding to Cochin, re-pressing and shipping there, in 800 bales of 300 lbs. each -	2,601	14	5
	13,627	9	9
Deduct amount realised by sale of seed -	3,071	2	4
	10,556	7	5
Freight from Cochin to Liverpool, on 300 bales, or 90,000 lbs. at 4 <i>l.</i> 7 <i>s.</i> 6 <i>d.</i> per ton of 1,500 lbs., is 262 <i>l.</i> 10 <i>s.</i> , or, rupees -	2,625	-	-
TOTAL - - - <i>Rs.</i>	13,181	7	5*

(* This sum, reduced to English money, gives 3½ *d.* per pound.)

AMERICAN COTTON.

	<i>Rs.</i>	<i>a.</i>	<i>p.</i>
2. Amount cost of 12 candies, 8 maunds, 10 lbs. of seed cotton, at <i>Rs.</i> 15. 5. 8. per candy of 500 lbs. -	190	11	6
Amount of expenses incurred in cleaning, half-pressing, forwarding to Cochin, re-pressing, and shipping there, in six bales of 300 lbs. each -	50	2	7
	240	14	1
Deduct amount realised by sale of seed -	27	8	-
	213	6	1
Freight from Cochin to Liverpool on six bales, or 1,800 lb., at 4 <i>l.</i> 7 <i>s.</i> 6 <i>d.</i> per ton of 1,500 lbs., is 5 <i>l.</i> 5 <i>s.</i> , or rupees -	52	8	-
TOTAL - - - <i>Rs.</i>	265	14	1†

(† This sum, reduced to English money, gives 3½ *d.* per pound.)

The per-centage of wool to seed of No. 1, was *Rs.* 21. 2. 6., and the whole batch cost in Coimbatore, when baled and ready to load, *Rs.* 51. 14. 5. per candy.

The per-centage of No. 2 was 29, and cost, when ready to load, *Rs.* 52. 13. per candy.

(signed) *R. Wight*, Surgeon,
Superintendent, Cotton Farms.

(True copy.)

(signed) *Robert Wight*, Surgeon,
Superintendent Cotton Farms.

From Surgeon *R. Wight*, Superintendent Cotton Farms, Coimbatore, to *J. C. Wroughton*, Esq., Principal Collector, Coimbatore.

Sir,

ADVERTING to the proposal contained in the 2d paragraph of Mr. Turner's letter, embodied in Minutes of Consultation, No. 498, under date 22d April 1847, that the 5,000 bales of cotton ordered by the Court of Directors be made up exclusively of American cotton, and considering under present appearances the small quantity likely to be produced for years to come, it has occurred to me that a much more extended cultivation might be speedily brought about if it was proclaimed throughout the district that on all lands, under American cotton cultivation, a remission of assessment will be given. This, I believe, you have authority to grant. The amount of remission that should be granted of course does not come within my province to propose, neither the term to which it should extend; but I believe 25 per cent., if promised for a term of three or five years, will be found sufficient to produce the desired effect.

2. I have already been making known among the local merchants who frequent the gin house, that I am in expectation of orders stopping the purchase of native cotton; but that I would supply all those who wished to cultivate the American plant with seed, and purchase the produce. These measures have a two-fold tendency toward the realization of the

II.
Madras.

Government desire to benefit the country by forcing on an extended cultivation of American cotton, inasmuch as they conjointly announce the probable stoppage of all our purchases of native cotton, and the certain opening of a sure market for the article required.

3. I am further induced to recommend the measure at the present time, partly with the hope that as the season promises to prove a favourable one for cotton, sufficient success will attend the first efforts of cultivators to ensure perseverance and future extension, if once pretty generally commenced, more especially when encouraged by obtaining from 20 to 25 per cent. higher prices for the new article than they could realize for the old, and partly because I have an available stock of between 20 and 30 candies of seed for distribution which I expect will prove more than sufficient to meet all demands; should this suggestion be approved of and acted upon, it should be at the same time mentioned that the sooner the seed is sown the better, as early sowing as the weather will permit being very desirable in the cultivation of that kind of cotton.

Coimbatore, 14 June 1847.

(signed) R. Wight, Surgeon,
Superintendent Cotton Farms.

(No. 22, 1847.)

From J. C. Wroughton, Esq., Principal Collector, Coimbatore, to Surgeon R. Wight,
Superintendent of American Cotton Farms.

Sir,

I HAVE the honour to acknowledge the receipt of your letter of the 14th instant, proposing, with the view of forcing the cultivation of American cotton, that a reduction of 25 per cent. should be made on the assessment of such land as may be cultivated with New Orleans cotton for a term of three or five years.

2. I am quite alive to the advantage of producing this staple to the greatest possible extent; but judging from the past, I do not feel any confidence that the measure you propose would have the desired effect. Instead of a reduction of 25 per cent., the Government were prepared in 1833, to remit one-half of the fixed assessment on all lands appropriated to the cultivation of American cotton; but this encouragement was not productive of any benefit, and consequently its continuance was subsequently considered inexpedient; independent of this, it appears to me that interfering with the long-standing survey settlement of the district is a very dangerous and doubtful experiment, and one likely to be productive of confusion and irregularity in a system which has, up to this time, worked so well; a measure of this nature is fraught with mischief, and should never be had recourse to, in my opinion, so long as any other alternative could be resorted to, and I believe having been thus viewed by Government, the order for the discontinuance of the indulgence alluded to (copy of which is herewith forwarded)* was issued.

3. As the production of American cotton must continue to be the result of concession on the part of the State, I think it would equally answer the purpose if the amount of the 25 per cent. was added to the price of the cotton, in lieu of a reduction on the soil. On this point I had occasion to address to Government, under date the 10th. December 1842, extract of which appears in the margin.

4. In the event of your coinciding with me in the proposed modification of your plan, I shall be happy to give publicity to any notification you may desire to publish; but on the other hand, if you still deem the remission should be made on the land, it will be necessary to address to Government on the subject, with reference to the order I have had the honour to receive previously touching this matter.

I have, &c.

(signed) J. C. Wroughton,
Principal Collector.
Revenue Board Office, Fort St. George.

Coimbatore, 15 June 1847.

* "If I am empowered to offer to the growers of cotton a remunerating price for it, with reference to its value, that I feel perfectly assured that it can be produced in this district to an extent far exceeding the most sanguine expectations of the Honourable Court of Directors.

"The ryots are quite prepared to commence cultivating this staple, deterred solely by the doubt as to how the produce is disposed of.

"The only difficulty, as I have before remarked, which presents itself, is for the disposal of the produce by the grower, relieved from the tax and molestation of brokerage, which I hope Government may consider it expedient to remove, by authorising the reception of American cotton produce solely at remunerating and encouraging rates; I would suggest for the present 17½ rupees the candy on delivery, seed inclusive, which might be returned or distributed to the ryots for future operations."

From *D. White*, Esq., Acting Secretary to the Board of Revenue, to *J. C. Wroughton*, Esq.,
Principal Collector, Coimbatore.

Sir,

WITH reference to your letter, dated 24th February 1844, recommending that the indulgence granted by Government in favour of lands appropriated to the cultivation of American cotton and Virginian tobacco, whereby a remission of one-half of the assessment was authorised, should be renewed, as far as regarded cotton, I am directed by the Board of Revenue to acquaint you that, on the subject having been laid before Government, the Most Noble the Governor in Council deemed it inexpedient to continue the indulgence.

I have, &c.
(signed) *D. White*, Acting Secretary.

(No. 862.)

BEFORE disposing of the proposition conveyed in the foregoing letter, the Most Noble the Governor in Council is desirous of obtaining from *Dr. Wight* information of the kind called for from the collectors of cotton-growing districts, in Extract Minutes of Consultation, dated 28th May 1847, No. 646. A copy of these orders will now be furnished to *Dr. Wight*, with a request that he will supply, as far as may be in his power, and at the earliest period, information on the various points noticed by Government.

Fort St. George, (signed) *H. C. Montgomery*,
31 July 1847. Secretary to Government.

(No. 935.)

EXTRACT from the Minutes of Consultation, dated 17th August 1847.

THE Most Noble the Governor in Council requests the Chamber of Commerce to favour the Government with information on the following points:

The average cost of fair Tinnevelly cotton per candy (3,500 lbs.) during the last three years.

The cost of packing, baling, shipping, and freight, and insurance to London or Liverpool.

The charge for commission on consignments of cotton to order.

Rates of exchange for bills at six months' sight at the time of shipment.

The cost per lb., delivered in London or Liverpool. The same information for fair Western or Bellary cotton.

2. His Lordship in Council would feel obliged by this information being given in a tabular form, and other particulars added which may suggest themselves to the Chamber as necessary to exhibit in full the cost per lb. to the exporter from this Presidency.

(signed) *J. F. Thomas*,
Chief Secretary.

From Surgeon *R. Wight*, Superintendent Cotton Farms, Coimbatore, to Sir
H. C. Montgomery, Bart., Secretary to Government, Fort St. George.

Sir,

Coimbatore, 4 August 1847.

I HAVE the honour to acknowledge the receipt of Minutes of Consultation, No. 862, under date 31st July 1847, calling for certain information relative to the cost of production of cotton and its marketable value.

2. To obtain the information called for in so full and precise a form as to admit of its being reduced to a tabular statement will require several days, or possibly even a fortnight; I trust, therefore, I may be excused for again troubling his Lordship in Council in the interval, for the purpose of soliciting his attention, in the first instance, to a single branch of the subject under consideration, that, namely, of granting remission of assessment on such lands only as are cropped with American cotton.

3. This mark of favour towards the exotic will, I anticipate, in the course of two or three seasons, suffice to establish its reputation in the country as a sure and very remunerating crop, after which it may be safely left to stand on its own merits; and as it is most desirable that it should be widely introduced both as being more productive and as yielding a superior kind of cotton, I trust this suggestion may meet with the favourable consideration of his Lordship in Council.

4. It will be advantageous if such an order could be speedily issued, since a whole year might to many be thereby saved, as numbers of ryots here who have heard, through the
296—Sess. 2. X gossip

gossip of the place, that an application for remission on American cotton has been made, are holding off until the reply is received. Though the season is already rather far advanced, much might still be done towards making a beginning, and I have even been told that if the orders were now issued, renewing the Order of Council of 1833 in favour of American cotton, I should have to supply probably as many as a hundred applicants with seed of the so-called "new cotton" for sowing on the first favourable fall of rain.

5. Should we be favoured with such rains any time in the course of this month, or even the first week of September, we shall, I believe, have little cause to regret the advanced period of the season, provided the following monsoon is of average quantity and duration. This is my principal reason for taking the liberty of renewing my application for remission on American cotton while the inquiries regarding the more general measure are in progress.

(signed) *Robert Wight*,
Superintendent Cotton Farms.

MINUTE.

Guindy, 3 September 1847.

On encouraging
the growth of
American cotton
in Coimbatore.

THE question involved in this reference is one of great practical importance, and requires to be viewed in all its bearings before the Government can arrive at any certain conclusion as to the course to be pursued.

2. I agree in the principle, apparently advocated by Mr. Wroughton, that the growth of American cotton in Coimbatore or elsewhere must depend upon the article finding purchasers willing to give a remunerating price to the grower; and that if such purchasers are forthcoming, as they assuredly will be for any article that will return a fair profit in the European market, a reduction of the land-tax is unnecessary, and American cotton will be grown in abundance.

3. But there is a prior question to be decided: Is it certain that this article can or will be raised in Coimbatore at a cost which would pay the exporter, who should, as Mr. Wroughton proposes Dr. Wight should do, offer an additional 25 per cent. in price? And if it should be found that this addition of price would render Coimbatore cotton a dearer article in the British market than American cotton already there, then it would, of course, be unsaleable. This country could not, under these circumstances, compete with America; and we must give up the idea of this Presidency becoming an exporting cotton country to Britain, whatever may be its natural advantages of soil or climate.

4. Mr. Wroughton does not appear to me to have looked at the question in this light, when proposing to Dr. Wight to increase his purchasing price 25 per cent.

5. If the Government were to sanction Dr. Wight's proposal, which would necessarily diminish the cost of production by 25 per cent. and upwards, a greater chance would exist of competing with America; and although the experiment would be accompanied by some sacrifice of revenue at first, yet that sacrifice would be more than compensated, if it should enable this country to command, in part, the British market.

6. The loss to the State of a portion of its land revenue, viz., 25 per cent. on land under cotton cultivation, would be cheaply purchased if it could permanently secure the large European market for the produce of India. For it must be borne in mind that there are in all the cotton-growing districts large tracts of land, of fair quality, lying waste; and a reduction of 25 per cent. on the rent of the land under American cotton, an article which must be exported, and which could be grown only for the foreign market, would have no tendency to interfere, unless perhaps for a very short period, with the growth of raw produce upon other lands for the home market. The demand in the home market for raw produce would remain the same, and would not be affected by the foreign demand for the American cotton of India. The same extent of land would therefore still be needed for raising the articles required for the home consumer, and the only results of lowering the rent or assessment on land under American cotton would be to bring a large breadth of land under the plough without in any way lowering the prices of agricultural produce in the home market. A large rental would consequently be received by Government, and the gains of the body of the ryots at the same time be also increased. For even should American cotton require the better soil now under the plough in lieu of the waste, still the home demand remaining the same, the waste would be taken in to supply the more ordinary grains, as grain, &c. required for the home market. A portion of the soil in India would, in short, be appropriated for raising produce for the market of Great Britain at a remunerating price to the ryot, whilst he would have the home market to himself as exclusively as before.

7. I am of opinion, therefore, that Dr. Wight's proposal should be tried, especially as I think it probable, considering the small capital in the hands of the ryots, and their general disinclination to speculate in raising new and uncertain products on land bearing a heavy rent, that they will be more readily induced in the first instance to grow a good breadth of American cotton by the offer of a reduced rent on the land than by the promise that, if

grown,

grown, a higher price will be paid for it. Under a reduced rent there will be a diminished risk, and if they succeed their gains may be very large; but if their crop of American cotton fail, which they have attempted to raise on lands fully assessed by the inducement of enhanced prices, then the offer of, or the knowledge that a good price could have been got, can be of no avail; it cannot lessen their loss, and they will naturally therefore not be willing to run the chance of failure with the heavy loss which a full assessment may entail.

8. But I would only authorise the reduction and the experiment for a limited, though a liberal term, and provided it clearly led, on an early day, to a very considerable extent of land being laid down with American cotton,

9. I would also warn the Government, from my experience in such matters, not to trust to the results of two or three years, nor to form any opinion till after some seasons have passed. I think Dr. Wight's statement that good marketable American cotton can be grown here, and brought into the British market lower than American cotton, provided there should be a reduction of the land assessment, altogether undeserving of much attention at present. It is, in fact, a mere opinion, for which there do not now exist data upon which a practical farmer or merchant would rely for a moment; the fact has not been tested by anything yet done.

10. Dr. Wight's own experimental farm, and the failure of his crops, have only demonstrated this, that American cotton cannot be grown at all with profit, and with the certainty of success, excepting in particular localities, which have the advantages of the two monsoons, as Outacamalund, where Mr. Wroughton raised the cotton so approved in England. These localities are probably limited, and they are exposed to the uncertainty of the north-east monsoon.

11. It is also yet to be ascertained whether cotton of the quality approved, and which has hitherto been grown chiefly on virgin soils or selected spots, can be raised on the same land in successive years without adopting the American practice of deep ploughing, trenching, and especially manuring. If it cannot, and this large additional expense must be eventually incurred, it must be a question some few years hence whether the growers here can, under any circumstances, compete with the growers in America.

12. The information called for by the Government under date the 17th August 1847 from all the officers in the cotton-growing districts, may assist us in forming an opinion on this point; but if not supplied by practical men, it must, I conceive, be very defective.

13. If it shall be found that the competition cannot be maintained from natural advantages of soil and climate, and the cheap labour of India, but only by the Government giving up its revenue on land under American cotton cultivation, whilst the same land might be profitably applied by the ryots to other products, and yield the usual amount of revenue to the State, it is plain that it will not be for the interests of the State that any extent of land should at any time be brought under American cotton cultivation; and I would not, as seems to be the case, assume the fact that India can profitably compete with America in the cotton market.

14. The consideration I have given to this subject, and my personal observation and inquiries, have led me to think, that the sooner the Government relinquishes all experimental farms, and its official agency for the purpose of raising cotton and other raw produce, the better. I do not think that any adequate trial can be made, nor anything done from which a fair conclusion can be drawn, as to the capability of the country, until private capital and private enterprise are embarked in the experiment; and this will not, I fear, be so long as Government occupies itself with experiments in the mode at present adopted.

15. One-half of the sums now expended, if offered as a bonus to private enterprise, in the form perhaps of bounties of advances on favourable terms, in erecting gins or other machinery for public use, or in grants of lands to individuals with capital free of rent for a term, or in any other more advisable mode, would, I should suppose, have brought the question to issue ere this.

16. Nor do I think it ever can be settled by the present system of a Government farm superintended by men not practically agriculturists, and unable therefore to direct the labour of those under them;—using Government capital and commissariat cattle—of a size and power which the cultivator cannot command at any price;—and who have no direct interest in the success of the experiment, nor in limiting the expenses. The sooner therefore the present system is abandoned, and private adventure and effort encouraged in substitution of it, the better, in my judgment.

17. I do not include the employment of Mr. Finnie in these remarks, as I think it of advantage that Government should be able to command the advice and services of a person who practically knows the nature and wants of the American plant, and of the cotton plant in general. And I am of opinion that, had Mr. Morris lived, and been allowed to carry out his plans unfettered, a great improvement might have been looked for in the cotton of the country. I think too little attention has yet been paid to this, and that it deserves consideration whether, instead of attempting to force on the ryots the cultivation of the American cotton, efforts should not be directed to the improvement of the indigenous article. This should not, at all events, I think, be overlooked in the encouragement which should be held out to private enterprises, and to European skill and capital, for the production of a superior and marketable cotton for the British market.

(signed) Tweeddale.

See letters from the collector of Bellary and Dr. Wight, dated 24 December 1845, and 11 Dec. 1845.

MINUTE.

1. I AM of opinion that Dr. Wight's proposition to grant a large remission of assessment on lands cropped with American cotton should be submitted to the Board of Revenue for their consideration and report, with reference to the result of former experiments of a similar kind, and to the orders* of the Honourable Court, directing that "the assessment should invariably be regulated by the productive power of the soil, and without reference to the species of produce which the owner may consider it most advantageous to cultivate."

It appears to me from the Honourable Court's Despatch† of the 14th July, No. 16 of 1847, p. 8, that they look to a sure sale of the produce, rather than to a remission of the assessment, as the means most likely to induce the ryots to improve their modes of cultivating cotton, and to use a better description of seed.

Guindy, 8 September 1847. (signed) *H. Chamier.*

MINUTE.

IF any faith is to be placed on the correctness of the statement of the cost at which cotton is usually grown in the Coimbatore district, which was submitted by Dr. Wight, in his letter of the 4th of August 1847, it is quite clear that nothing but a reduction of the assessment on the land, or an increase in the selling price in the bazaar, can remunerate the ryot for the expense he has incurred, and the labour he has bestowed in the cultivation of it.

I think it may be fairly assumed that Dr. Wight must have rather over-rated the expenses incurred by the ryots in raising a crop of cotton, since it can scarcely be credited that he would enter on such a speculation, certain that it must at last entail on him a loss.

Admitting then that the case is really a shade better than it has been represented to be, still it is clear that unless some more powerful inducement than now exists be held out to ryots, they will not employ their time and capital in the cultivation of cotton.

I doubt whether a reduction of 25 per cent. even on the assessment would induce ryots to bring much of their land under the cultivation of American cotton, because I believe that in ordinary cases waste land would not be found sufficiently near to their holding of rich black soil to induce them to change their usual course of cultivation, and to rear the ordinary products for the home market on land then newly to be brought under cultivation.

The experiment can however be tried.

In the remarks of the Most Noble the President on the present experimental farm I quite agree. A great deal of money appears to me to be expended upon it, which can tend to no useful result; I think that it should be abolished, and practical men, such as Mr. Finnie, employed to diffuse instruction among the ryots.

13 September 1847. (signed) *H. Dickinson.*

From Surgeon *R. Wight*, Superintendent Cotton Farms, Coimbatore, to Sir *H. C. Montgomery*, Bart., Secretary to Government, Fort St. George.

Sir,

I HAVE the honour to acknowledge the receipt of Minutes of Consultation, No. 862, under date 31st July 1847; giving cover to Extract Minutes of Consultation, No. 646, under date 28th May 1847, calling for information, regarding: First, the prime cost of cotton; Second, the proportion which the land-tax bears to the whole cost; Third, the profits of middle-men; Fourth, the charges of conveyance to the port of shipment; and Fifth, the estimated damage in transit, all reduced to the standard of 1 lb., and stated in English money.

This last I have found quite impossible; our smallest denominations of English coin being much too large, unless reduced to decimal fractions, and would then require two, three or four places of figures. To avoid that difficulty I have adopted as the basis of the following statements and calculations the Indian candy of 500 lbs., a mode of dealing with the matter rendered still further necessary by the loose way natives keep their accounts, if such indeed it can be called, where most of their transactions are ready money ones, and no account kept.

The

* "The mode adopted in Chingleput, for assessing lands appropriated to the cultivation of superior products does not distinctly appear from this correspondence. It is our wish that the assessment should invariably be regulated by the productive power of the soil, and without reference to the species of produce which the owner may consider it most advantageous to cultivate. If a contrary practice be found to exist either in Chingleput or elsewhere, it should be immediately discontinued." Court's Revenue Despatch, 17th August 1838, No. 12, p. 42.

† "The principal difficulty which he (Mr. Finnie) appears to have had to encounter in the first instance, in inducing the ryots to improve their modes of cultivation, and to use a better description of seed, was in the apprehension which they expressed, that they should be unable to find a market for their produce. Mr. Finnie will be, in a great measure, enabled to remove this apprehension under the authority now given to him to purchase cotton, and the real price at which good cotton can be procured in the districts will be more satisfactorily ascertained by means of purchases made on private account than of purchases on account of Government. Mr. Finnie himself states, that as soon as it was believed in the district that he was authorised to make purchases of cotton on account of Government, an increased price was immediately demanded." Court's Despatch, Revenue Department, 14th July 1847, No. 16, p. 8.

The following statements of prime cost were obtained from several sources, and, judging from our recorded experience with which they have been compared, may be looked upon as close approximations to the truth.

My informants divide all land into descriptions of soil; viz. the black cotton ground, and red or kursel lands. The first, they say, is the more expensive in all respects, but is still the more profitable, first, by the returns being more certain and larger; and, second, by the cotton being of a quality that commands higher prices in the market.

I shall, therefore, confine my statements to the first, as giving the most favourable view of the case, so far as the ryots are concerned.

The standard for land is the Indian bullah, or vullum; both words seem in current use; a bullah is equal to about three cauwies, or reduced to English land measure, is stated to be $31\frac{3}{16}$ acres.

The tax on one bullah of black cotton ground is 6 rupees; six ploughings are required to prepare the ground and cover the seed, the aggregate amount of which is about $10\frac{1}{2}$ rupees; that is, the first three ploughings when the ground is hard and difficult to work is charged Rs. 2. 8. each; the next two Rs. 1. 4.; and the last, which is merely covering the seed, 8 annas; total ploughing, Rs. 10. 8.

The ground is twice hoed, the cost variously stated at from 1 rupee to 1 rupee 4 annas each time. I assume the lower statement (though I think it too low), because I think they manage the ploughing a little cheaper than here stated; hoeing 2 rupees, seed 8 annas, picking the crop Rs. 2. 8. The ryots, from whom I had the above particulars, state that the picking is paid in kind; one-eighth of the crop being the pickers' share, which, by estimate, should yield 3 rupees. This is clearly too high; I have, therefore, set it down at Rs. 2½, the same as on our farms, where we pay one anna per maund of 25 lbs., equal to one rupee four annas per candy. In return for these various items of cost, the ryots state that they have a fair crop when the return amounts to four loads or puddies of 10 maunds (250 lbs.) each, or two candies of seed cotton per bullah of ground. This return is quite in accordance with our experience. It may, and under favourable circumstances, no doubt often exceeds that quantity, but much oftener it falls below. That quantity may, therefore, be assumed as a fair average.

The charges and returns then are—

	Rs.	a.	p.
Land tax -	6	-	-
Ploughing -	10	8	-
Hoeing -	2	-	-
Seed -	8	-	-
Picking -	2	8	-
TOTAL - - -	Rs. 21	8	-

Amount of crop four puddies, or two candies.

These statements refer to black soil. The tax on kursel lands is lower, the agricultural charges a shade less, but the quantity as well as quality of the crop decidedly inferior; so that they are no gainers by growing cotton on cheap lands.

The purthee or seed cotton is currently sold on the field at from Rs. 4. 12. to Rs. 5. 8. to petty merchants, who forestal the market by going and making advances in anticipation of the crop. If the ryot, in place of selling it by anticipation, picks and stores it until called for, or until the prices have attained their maximum for the season, he may then get from Rs. 5. 12. to Rs. 6. per puddy; Rs. 5. 4. is, however, considered the nearest approach to an average, giving 21 rupees as the average value of the whole crop; that is, he loses half a rupee on every bullah. This statement, startling as it may appear, I yet suspect is even too favourable to the ryot, the return from a field of cotton being oftener loss than gain.

The statement having been completed, I asked, with affected surprise, what induced them to cultivate a crop which, even in good seasons, gave no profit, and in bad ones was sure to cause loss.

The reply was not very precise; but after a good deal of cross-questioning, it came out that though in itself cotton gave no profit, yet that it was a money crop which enabled them to raise funds to pay for their other lands, in place of having to mortgage their corn to the monagars and curnums (in case they had not money to pay the tax when demanded), which was always attended with heavy loss; that it afforded employment for their own families to cultivate the land, and that, by being an early crop, they were enabled, in favourable seasons, to get a second crop of corn off the land, for which the cotton had already paid the tax. The former of these considerations, its being a money crop, made it necessary to grow cotton, but that, as it was an uncertain crop, fluctuating in its value, the profits obtainable all indirect and the risk considerable, they would rather not cultivate it in the present state of the market, if there was any other on which they could place equal dependence for raising money to pay their khist. From this view of the case, it would appear that the ryot attaches the smallest value of any of his crops to cotton, and would rather not cultivate it if he could do without.

Ever since I came to Coimbatore, up to the present year, the average bazar price has been under 6 rupees, varying from $5\frac{1}{2}$ rupees to $5\frac{3}{4}$ rupees per load of 10 maunds, at the commencement of the season, and rising to from 6 rupees to $6\frac{1}{2}$ rupees towards the close. This last season, owing to the extensive failure of the crop, it has exceeded 7 rupees, but still I think 6 rupees may be taken as a fair average for the last five years.

From this sum is to be deducted the cost of bringing the cotton from the field to the godown, and the interest of capital between the purchase and sale of the article. The

II.
Madras.

first of these two items may perhaps be taken at 4 annas the load, or 2 rupees on the candy of clean cotton, four candies, or eight loads of seed cotton being required to produce one candy of clean. Then eight loads on the field, at Rs. 5. 4. = 42 rupees, cost of carriage to market, Rs. 2 = 44 rupees. Market price, at 6 rupees per load, $8 \times 6 = 48$ rupees; merchant's profit, if sold with seed, 4 rupees, or 9 per cent.

If, however, he separates the seed and sells it and the cotton separately, the case is considerably altered. The charge for churkaing four candies of seed cotton, yielding one candy of clean, is 7 rupees; the value of the seed, at five maunds for a rupee, is 12 rupees; then $12 - 7 = 5$; which, being deducted from 44, leaves 39 rupees, as the cost of the candy of clean cotton, the average market price of which is 45 rupees, thereby raising the profit from 9 to $15\frac{1}{2}$ per cent. But that is not all profit, as several months must elapse between the purchase and payment for his seed cotton and the sale of his cotton wool, during which time he is losing interest on the capital invested; native interest being high and their transactions dilatory, I shall allow 1 rupee per candy on that account, thereby reducing his profit from $15\frac{1}{2}$ to $11\frac{1}{2}$ per cent. In the construction, however, of the concluding table, I have unavoidably left out that item, and credited the first purchaser 15 per cent. on his bargain, that being the difference between his buying and selling prices, thereby raising the price from 39 to 45 rupees, the usual selling price.

It must not, however, be supposed that the exporting merchant purchases his cotton on these terms, as he has to deal through the medium of an agent or second middleman, whose commission raises the price to him at least 5 per cent. more, so that he has to pay 20, if not even 25 per cent. on the first cost, raising the price to about 47 rupees; thus $39 + 20$ per cent. (Rs. 7 12. 9.) Rs. 46. 12. 9, is no uncommon price, I believe, for the Madras merchant to pay for good cotton in the provincial markets of Coimbatore and Tinnevely. Inferior qualities currently fetch from 44 to 45 rupees, on which commission must be added, making them up to nearly the above figures.

Assuming that these statements, so far as they go, are approximations to the truth, the price of a candy of churka-cleaned cotton in Coimbatore may be set down at 45 rupees. Bagging, for transmission to the coast, 3 rupees; bandy hire to Madras, $8\frac{1}{2}$ rupees (this is a fluctuating charge, often higher, seldom lower); total, Rs. 56. 8.; or, reduced to English currency, at 2s. to the rupee, 5*l.* 13*s.*, about $2\frac{11}{10}$ *d.* per pound.

These are the elements from which the following table is constructed.

Should this table be compared with that furnished from the gin-house, copy of which I append, a considerable discrepancy will be apparent; which is explained by the fact that in all the preceding calculations I have allowed 25 per cent. of cotton to seed, whereas the gins, even with the best cotton, rarely average over $21\frac{1}{2}$ per cent., a difference amply compensated for by the cheaper rate at which we separate the wool (5 rupees per candy), and by the freedom of ginned cotton from impurities, which must be removed before spinning, and, under the comparatively rude operation of the thrasher, amounts to 3 per cent. on every clean-looking churkaed cotton, being equivalent to three bales on every hundred of mere waste; but still incurring all the charges (about 19 rupees per bale) in transport to the market of consumption of the best cotton. Exclusive of that saving, ginned native cotton returns, on an average, 6 per cent. higher prices in the English market than churkaed.*

TABLE showing the Cost of Production of One Candy (500 lbs.) of cotton in the Coimbatore District, the Proportion which the Land-Tax bears to the Agricultural Charges and to the whole Produce, the Profit of the Local Merchant purchasing it as Seed from the Ryot, the Cost of Clean Cotton delivered at Madras, the Port of Export, and lastly, the Price per lb. in English Currency.

Land-Tax on Two Bullahs of Black Cotton Ground.	Agricultural Charges for raising a Crop of Cotton.	Price of Crop purchased on the Field.	Loss sustained by the Ryot in cultivating Cotton.	Per-centage of Tax to Agricultural Charges.	Per-centage of Tax to Total Produce.	Cost of Carriage from the Field to the Merchants' Godown.	Bazaar Price of Crop (Seed Cotton) being 9 per Cent. Profit on 44 Rupees, the Field Price and Carriage.	Bazaar Price of One Candy of Clean Cotton, after allowing for Seed, being $15\frac{1}{2}$ per Cent. Profit on First Cost.	Cost of Package and Bagging for Transit to the Coast.	Bandy Hire from Coimbatore to Madras.	Total Cost delivered at Madras.	Price per lb. reduced to English Currency.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs. a.	Rs.	Rs.	d
12	31	42	1	$38\frac{1}{2}$	$28\frac{1}{2}$	2	48	45	3 4	$8\frac{1}{2}$	$56\frac{3}{4}$	$2\frac{11}{10}$

Coimbatore,
24 August 1847.

(signed) Robt Wight, Surgeon,
Superintendent Cotton Farms.

* Charges on three candies, or 1,500 lbs. of cotton :

	Rs.	a.	p.
Bandies to Madras	25	8	—
Bags	9	8	—
Baling	12	8	—
Embarking	2	8	—
Freight	45	—	—
TOTAL	Rs. 94	8	—

The Superintendent Cotton Farms in account with Mr. *Petrie*, Acting Agent for the Purchase of Native Cotton for Consignment to England, as per Court of Directors' Despatch, communicated in the Extract Minutes of Consultation, No. 154, under date 3 February 1846.

Dr.

1846:		Lbs.	Oopum seed cotton at	Rs. a. p.	Rs. a. p.
30 June -	To purchased	1,578½	Rs. 5. 12. per 260 lbs.	34 14 -	
	Ditto	1,754½	Rs. 5. 14. - ditto	39 10 1	
	Ditto	11,070½	Rs. 5. 15. - ditto	252 12 9	
	Ditto	26,430½	Rs. 6. - - ditto	609 14 9	
	Ditto	3,070	Rs. 6. 2. - ditto	72 5 1	
	Ditto	2,188	Rs. 6. 3. - ditto	52 1 2	
	Ditto	8,550	Rs. 6. 8. - ditto	213 12 9	
		54,642			1,275 6 7
	Deduct,—	Lbs.			
	Tare at 1 per cent.	546			
	Bad locks picked out previous to ginning	159			
	Dirt extracted by the thrasher	233			
		938			
	Quantity ginned	53,704	yielding 21.5. per cent. of cotton wool, or 23½ candies.		
	Paid for 50 coolies picking out bad balls, at 1 anna each			3 2 -	
	Paid for ginning 23 candies of Oopum cotton, at 5 rupees per candy			115 - -	
	Paid for 38 bale-cloths, 38 ropes, and pressing 38 bales, at Rs. 1. 8. per bale			57 - -	
					175 2 -
				Rs.	1,450 8 7

The weight of seed cotton to be accounted for is - - - Lbs. 53,704.

Sold 1,579 maunds and 13 lbs. of seed at 26½ lbs. per maund	- - - -	Lbs. 41,448½
Cotton wool produced 23½ candies, or	- - - -	11,550
* False and small seeds that pass through the gin-bars	- - - -	605
Sold 1 maund of inferior cotton, only fit for bedding	- - - -	26½
Lint-room sweepings	- - - -	73½

Lbs. 53,704

* This is given to the cattle, being unsaleable.

Cr.

1846:		Rs. a. p.*	Rs. a. p.
30 June -	By amount received from the Superintendent cotton farms	- - -	1,125 6 7
	By amount realised by sale of Oopum cotton seed, 1,337½ maunds, at 5 maunds per rupee	267 8 -	
	By amount realised by the sale of Oopum cotton seed, 242 maunds, at 4½ per rupee	56 14 -	
	By amount realised by the sale of 1 maund of inferior cotton, at 12 annas per maund	- 12 -	
			325 2 -
		Rs.	1,450 8 7

The cost of 23½ candies of cotton wool pressed in half-screwed bales, and inclusive of gunny and ropes, is Rs. 1,125. 6. 7. or Rs. 48. 11. 3. per candy.

(signed) *James Petrie*,
Acting Agent.

II.
Madras.

To the Chief Secretary to Government, Fort St. George.

Sir, 26 October 1847.

I HAVE the honour, by desire of the Committee of the Chamber of Commerce, to acknowledge the receipt of your communication of the 17th ultimo, being extract from Minutes of Consultation of the Most Noble the Governor in Council, under that date, requesting from the Chamber of Commerce certain information relating to the local price, charges of shipment, and cost laid down in London, of Tinnevely and Western cotton during the last three years.

In accordance therewith, I have much pleasure in forwarding to you, for the information of the Most Noble the Governor in Council, a tabular statement, showing, as well as can be done in this form, the particular details referred to in your communication, giving the price paid to the sellers, the charges incurred in India for completing the shipment, being at the rate of Rs.5. 13. 4. per candy, together with commission at 5 per cent., the current exchange at which the cost could have been drawn for by bill at six months sight at the dates stated, the current freight at the same periods, the cost of insurance, the London charges incurred previous to and in effecting a sale, and finally, the cost to the shipper of the articles laid down in England, per candy and per lb.

The 1st July of each year has been taken, as this is the period when cotton comes to market in greatest abundance, and when the greatest quantity is shipped.

With reference to Tinnevely cotton, I may add that the price has been taken as deliverable at Tutacurin, whence the greater part of the crop is now exported without being brought to Madras. The cost of transit to Madras in loose bags adds from three to four rupees per candy to the price. This explains the difference of 10 s. per ton freight, as chargeable upon Tinnevely and Western cotton. It is generally necessary to pay at least so much extra freight for tonnage from Tutacurin over what is current from Madras.

(signed) J. Thomson,

Member of Committee,

For the Chairman.

Madras, 25 September 1847.

TABULAR STATEMENT, showing the COST and CHARGES on Shipment of COTTON from the Madras Presidency to England, during the Years 1845, 1846, and 1847.

DATE.	Price per Candy of 500 lbs.	Madras Charges, including Commission, 5 %		Ex- change.		Freight, 4½ Bales to the Ton of 300 lb. net.	Insurance on Cost without Freight, at 2¼ %		London Charges, including Commission at 7 %	Total Cost Laid down in London	
										per Candy.	per Lb.
	Rs. a.	Rs. a. p.	Rs. a. p.	s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	C.
TINNEVELLY COTTON FROM TUTICORIN:											
1 July 1845 -	53 4	8 8 -	61 12 -	1 11	5 18 4	{ 41. 5 s. per ton, or per candy - }	1 11 6	- 2 8	7 12 6	- 10 8	8 3 2 3 11 4 1 12 5
1 July 1846 -	50 -	8 5 4	58 5 4	2 1 1 1 4	6 2 9	{ 42. 10 s. per ton, or per candy - }	1 13 4	- 2 9	7 18 9	- 11 -	8 9 10 4 0 1 12 5
1 July 1847 -	56 8	8 10 6	65 2 6	2 - 1 1 2	6 13 -	{ 67. 10 s. per ton, or per candy - }	2 8 2	- 3 -	9 4 2	- 12 -	9 16 2 4 8 1 12 5
WESTERN COTTON FROM MADRAS:											
1 July 1845 -	38 -	7 11 9	45 11 9	1 11	4 7 7	{ 37. 15 s. per ton, or per candy - }	1 7 9	- 2 -	5 17 4	- 7 10	6 5 2 3
1 July 1846 -	40 -	7 13 4	47 13 4	2 1 1 1 4	5 - 8	{ 47. per ton, or per candy - }	1 9 7	- 2 3	6 12 6	- 9 1	7 1 7 3 4 9 1 12 5
1 July 1847 -	43 -	7 15 9	50 15 9	2 - 1 1 2	5 4 1	{ 64. per ton, or per candy - }	2 4 5	- 2 4	7 10 10	- 9 4	8 - 2 3 1 0 5 1 12 5

A candy = 500 lbs.

Madras, 25 September 1857.

(A true copy.)

R. Clarke,
Deputy Secretary to Government.

(signed) J. Thomson,

From Surgeon R. Wight, Superintendent Cotton Farms, Coimbatore, to Sir
H. C. Montgomery, Bart., Secretary to Government, Fort St. George.

Sir,

26 October 1847.

In July last two of the American cotton planters who had returned to England from this country were requested by the Commercial Association of Manchester to be present at a meeting of that body, for the purpose of communicating oral information regarding the difficulties

difficulties appertaining to cotton culture and trade in India. A report of the proceedings of that meeting was published in the Manchester newspapers of the 17th July, copies of two of which have obligingly been sent to me, I believe by one of the members present on the occasion, but who has not given his name.

2. From these reports* I learn that Mr. Mercer, one of the returned planters, and, as I have heard, by far the ablest and most practical man of the party, has given it as his opinion "that the introduction of the exotic cotton of New Orleans must be limited, in consequence of its growing only in peculiar climates;" Dharwar and Coimbatore being mentioned as suitable localities, on account of the mildness of their respective climates, while Bawanie (as being too hot?) is specifically mentioned as one where it would not grow in the open country.

3. On first reading these statements, viewing them as mere hypothetical deductions based on imperfect acquaintance with the climate of the countries of which he spoke, I attached no importance to them, and never contemplated bringing the subject under the notice of Government. A letter from Dr. Royle, however, received by the last mail, requesting me "to inquire whether some favourable localities for American cotton might not be found along the coast, from Vizagapatam to Cuttack," has placed the matter before me in a new and much more important light, by showing that even he, with all his knowledge of India, had been led to adopt Mr. Mercer's views—views which I consider decidedly erroneous. Mr. Finnie, with better opportunities of becoming acquainted with the climate of the Peninsula than either of these gentlemen, is also, I find, of the same way of thinking, as he tells me, in replying to a note in which I had informed him that I had sent large supplies of seed to a cultivator at Aroopocotta, who was about to embark in the cultivation of American cotton on a large scale, that "he believes he might almost undertake to eat all the cotton that will be produced;" showing clearly that he considers the attempt no better than waste of labour and capital in that line of country, and that there his services, as a planter, can be of no avail.

4. In a letter which I addressed to Mr. Turner, of Manchester, in reply to an anonymous one,† received from the gentleman who had kindly sent me the newspapers, I took occasion to dissent from Mr. Mercer's views, and to point out that it was not mildness of climate, as regards temperature, that we required for the successful cultivation of the American cotton plant, but sufficient humidity during the growing season. This, if sufficient to bring the plant to a medium state of perfection, will, I consider, always ensure as satisfactory crops as those obtained in Dharwar, however hot the weather may be during the picking or harvest season. I have also given publicity to the same opinion through the medium of the proceedings of the Agricultural Society of India.‡

5. Standing thus alone in my opinions, and considering that, unless I can establish their correctness by showing that at least equally large crops can be obtained on both coasts, if not indeed generally over the Carnatic and circars, with those found remunerating in Dharwar, the value of the costly experiment still in progress is comparatively small, or at all events is materially lessened; I have felt it my duty to submit the whole subject for the consideration of the Most Noble the Governor in Council, and at the same time offer, sufficient aid being given, to verify my views by actual experience, even though it will lead to my detention in India for at least a year longer than it was my intention or wish to have remained.

6. To effect this, under existing circumstances most important desideratum, two farms are wanted, one on each coast. These need not be on an expensive scale; but for their management I shall require two additional assistants, and as they must unavoidably have the command of the funds wanted for current expenses, they will require to be Europeans, respectably connected, in whom every confidence can be reposed. They might be engaged on salaries of 100 rupees monthly in the first instance; but with the understanding that it was to be raised to 150 rupees from the time they entered on detached duties, and had to conduct distinct and responsible charges. Should this plan be adopted it will become necessary to raise Mr. Cuxton's salary to an equal amount, as I could ill spare his services in the gin-house, now a very important branch of the establishment, with the details of which, especially the valuation of cotton offered for purchase, he has become familiar, and to detain him there on a smaller salary than his juniors in the department were receiving would scarcely be fair towards him, a zealous servant, and might lead to my losing his services altogether.

7. To Mr. Sherman, should the proposed extension be adopted, I must unavoidably entrust the management of the Coromandel farm, as being in every respect competent, with but little aid from me, so to conduct its duties as in the shortest possible period to set the question for which it is established, at rest; he being, moreover, a most trustworthy man. Its distance from Coimbatore and the consequent impossibility of my visiting it oftener than
once

* One of which accompanies.

† Extracts of both are appended.

‡ See Calcutta Star, 14th, and Madras Spectator newspapers, 27th September 1847.

II.
Madras.

once or twice a year, added to the importance of the object to be attained, are my reasons for selecting my best assistant for that duty. Nor can I fail to avail myself of the present opportunity of bringing Mr. Sherman's services to the favourable notice of Government, with a view to soliciting for him an augmentation to his salary. He has now been on these farms for six years; is thoroughly conversant with all their details; and, as a cultivator, is to the full as competent as any of the Americans, while his salary is only 150 rupees, though, owing to having the supervision of three farms, Topinpollium, Kenathkovadoo, and Palatchee, (the first and last nearly 20 miles apart,) he requires to keep a conveyance and incur extra expense in travelling from one to the other. Whether or not the new farms are adopted, I would still urgently but most respectfully solicit an increase of 50 rupees monthly to his salary, as I cannot but feel that for the duties he has now to perform he is really underpaid.

8. Assuming that the additional farms will be sanctioned, the plan I propose pursuing is to endeavour as speedily as possible to engage two assistants, to be put in training under Mr. Sherman, until the seasons arrive for giving them independent charges. The Coimbatore farms will remain under Mr. Sherman's direction, with the exception of probably two months, until the sowing of our next year's crop is finished in August. In the interval, about March or April, he will require to proceed to the coast to select suitable lands and arrange about obtaining hired labour, &c., so as to have everything in readiness to begin work in September, as soon as the state of the season will permit agricultural operations to be commenced.

9. While on this subject, I shall, with the view to avoiding the necessity of future recurrence to the same topic, solicit the attention of his Lordship in Council to the position of five East Indians who have now been employed on the farms since 1843. They were in the first instance sent here as apprentices of the Philanthropic Association, and were, with the exception of five rupees monthly granted at my request, (see last paragraph of my letter dated 10th November 1843,) entirely maintained by the Association upwards of two years; latterly their connexion with the Society ceased, and their services being required on the farms, they have been retained on more liberal allowance, but still very low for young men of their attainments and now well ascertained steady industrious habits.

10. One considerably in advance of his fellows was last year placed in a more responsible situation, and had his salary raised to 25 rupees. This I do not propose altering, but I should certainly like to be permitted to raise those of the others to 20 rupees each.

11. I would further take the liberty of requesting that I may be permitted to employ, as favourable opportunities offer, four or five more lads of the same class, on salaries varying from 10 to 15 rupees, according to their qualifications, or in other words, authorising my engaging them in the first instance at 10, and increasing their pay by stages as I may see fit up to the maximum of 15 rupees. As overseers, I have found them more trustworthy and intelligent than natives, with the advantage of being always available for duty wheresoever required, which natives are not beyond their own talooks.

12. In asking this addition to the establishment, I have a double object in view, first, the extension of our farms, so as if possible to furnish 1,000 bales of New Orleans cotton from them next season, and, secondly, for the purpose of making these farms a nursery, if I may so say, for the training of overseers for the supply of whomsoever may require their services in any part of the country.

Coimbatore, 26 October 1847.

(signed) Robert Wight, Surgeon,
Superintendent Cotton Farms.

EXTRACT of an Anonymous Letter to Dr. R. Wight.

THE party who encloses the accompanying newspapers, would solicit the attention of Dr. Wight to the following remarks on the attempts to introduce into India the culture of the Mexican cotton plant.

In all the attempts which have been made, the plant ought to have been treated naturally; and there are three points especially in the culture of this plant, in which nature ought to have been followed. The first of these is the elevation; the second is the time of sowing; and the third is the soil.

1. *With respect to the Elevation.*—The plant should have been cultivated on land nearly on a level with the sea, for such is its natural locality. So that Dr. Wight's announcement of the intended trial of the experiment in Tinnevely is a very satisfactory one.

2. *As regards the Time of Sowing.*—It should have been at the commencement of the rains; this is the natural time of the germination of its seed. Upon this important point, Dr. Wight is clearly wrong. He keeps the seed out of the ground from the middle of May to the middle of July, and alleges as a reason for this great deviation from nature, that if he did not do so, the north-east rains in October would destroy the earlier part of the crop.

3. *As respects the Soil.*—It should have been sown in soil of a light description; this is its natural soil, as its long tap-root plainly indicates. The black cotton soil of India, which is so difficult to work, is evidently not suitable to the nature of a deep tap-rooted plant. Dr. Buchanan describes this soil as “a black mould containing much clay.”—(Mysore Journey, vol. 3, p. 319.) Dr. Keyne calls it “a black stiff mud”; “a stiff black soil, which, when dry, is so hard that no root can make its way through it.”—(Tracts, pp. 276. 232.) Dr. Keyne also states that few plants are natural to it, and few trees will thrive on it; but that “it would be endless or impossible to enumerate the natural productions of the loamy and other soils, as they comprise, according to their peculiarities, all the botanical productions of the country.”—(Tracts, p. 310.) Dr. Wight, however, seems to think, that the black soil will produce the best stapled New Orleans cotton; but the wretched staple of Mr. Mercer’s dwarfed plants, which grow on this soil, is not at all in favour of such an opinion.

The writer of these remarks entertains a confident hope that Dr. Wight, in his treatment of the Mexican cotton plant, will yet follow nature in all the three particulars of elevation, time of sowing, and soil, and wishes him every success in so doing.

EXTRACT of a Letter from Dr. R. Wight to J. A. Turner, Esq., Manchester, dated, 27th September 1847, in reply to the above.

Para. 2. The object of the writer is to inform me, that in all the attempts which have been made to introduce into India the culture of the Mexican cotton plant, it ought to have been treated naturally; and that there are three points especially in the culture of this plant in which nature ought to have been followed; but, I presume, in his estimation, has not been. “The first of these is, the elevation (above the level of the sea); the second, the time of sowing; and the third is, soil.”

3. As regards the first, it is stated, “the plant should have been cultivated on land nearly on a level with the sea,” thereby tacitly implying that our departure from that rule has to some extent led to failure. To a small extent I admit this inference, and acknowledge, that I think our operations have had a too limited range; and that it is a subject for regret that a farm was not from an early stage of the experiment established near the coast; but I am very far from admitting the objection to the extent urged, because I feel certain that the difference of elevation between Coimbatore and the sea will be found to weigh light in the balance when brought to the test of comparative experiment. I equally dissent from the opinion that we are mainly indebted for our success in growing Mexican cotton in Dharwar and Coimbatore to the mildness of the climate, and that similar success will not attend our efforts in most other parts of India, where this mildness is not found. The term is indefinite, so that I am uncertain whether the Carnatic would be included, by him, among the milder regions; but if not, then I feel certain that he takes an erroneous view, as I am confident that, with judicious management, the soils being equal, we should succeed equally well, or perhaps better, all over the Coromandel Coast, from Cuttack to Cape Comorin, than we have yet done in either Dharwar or Coimbatore.

* * * * *

11. As the subject discussed in that letter, viz., the natural treatment of the Mexican cotton plant in India, is not only highly interesting in itself, but promises to be most important in its consequences, I shall, even at the risk of being considered prolix, endeavour to explain how I think this might be most nearly accomplished, and in doing so, hope to satisfy my monitor that, if not quite natural according to his views of the case, my plan is at least as near an approximation to nature as the meteorological differences of the two countries will admit. I moreover anticipate the pleasure of being able, in the course of my explanation, to satisfy him that, in confining in this instance the operations of nature to three special points, viz., elevation but little raised above the level of the sea, sowing about the middle of May, and employing only soil of a light description, he has very materially curtailed her prerogative in such cases; and I even hope to succeed in bringing him to agree with me in thinking that, within certain limits, two of his essentials, elevation and soil, are of comparatively secondary moment; and that the third, time of sowing, as limited by him, is only partially applicable to India.

12. I adopt as my text, his axiom, that in our attempts to introduce the culture of a new plant, we ought, as much as possible, to follow nature. How is this to be done as regards the introduction of the Mexican cotton plant into India? Every one knows that many plants thrive equally well at great differences of elevation. The Mexican cotton plant on the plains of the Indian Peninsula, within certain limits, say from the level of the sea to 1,000 or 1,500 feet is, I conceive, one of them. Within these limits, therefore, I attach little importance to elevation on the open plains of the Carnatic.

13. The quality of the soil is of more consequence, since no plant grown in unsuitable soil will ever produce good crops; but that is not so easily under our control, as, not seldom, we find adjoining fields, or even opposite halves of the same field, greatly differing in that respect, one being much more fertile than the other, though apparently quite the same, so that here we must to some extent be content to take our chance, some fields being good, some bad, and some indifferent, although all much alike in external character.

II. Madras.

14. As an abstract principle, therefore, fertility of soil, like elevation, seems in nature's estimation, within certain limits, to rank as one of only secondary importance. The soil to which I give the preference, when I have my choice, is a deep, dark coloured, light, almost sandy loam, and if it has been long out of cultivation so much the better.

15. The determination of the time of sowing, which I esteem of primary importance, is dependent on several considerations, but more especially on the sort of climate we wish to obtain for our plant, as being that best calculated to bring it to its greatest degree of perfection at the period of maturity, when it begins to yield its crop. To determine this point, an intimate acquaintance with both the habits of the plant and the usual course of the seasons is absolutely necessary. These being known, nothing can be easier than to say in what month we should sow our seed. For example, we know that in average seasons the Mexican cotton plant requires from six to eight weeks from the date of sowing to come into flower, and about the same length of time from the fall of the blossom to the opening of the pod. We equally know that rainy weather, or even a dark, cloudy, damp atmosphere, has a tendency to prevent the boll opening at the proper time, and that if so prevented the cotton becomes more or less deteriorated, varying in degree according to the intensity of the deteriorating cause, from absolute destruction to simple adhesion of the fibres, or to mere slight discolouration; and, lastly, we know that the prevalence of rainy weather during the period of growth promotes luxuriance and productiveness, provided the drainage is free, and humidity is exchanged for clear, bright weather at the season for maturing the crop.

16. These points appertaining to the habits of the plant being known, we have next to ascertain the course of the seasons of the region where we contemplate cultivating. On the eastern coast of the Indian peninsula, the rains of the south-west, or petty monsoon, which are very uncertain as to quantity, commence in July, and continue in the form of partial showers throughout August and September. In the latter months, the quantity that falls is usually sufficient for agricultural operations being commenced; in October the quantity increases, and in the course of the latter half of that month the north-east monsoon is usually fully established, and continues, with intervals of fair weather, until about the middle of December. If the cotton crops have been sown before the middle of September, they will be in a good, perhaps the best, state for benefiting by the heavy monsoon rains. By following this course the plant enjoys a clear uninterrupted growing season of about three-and-a-half months, receiving almost every week more or less copious falls of rain. By the end of that time it will have nearly attained its full growth, and shortly after should begin to yield its crop, and will continue to do so, almost without intermission, for nearly three months.

17. On the west coast, a similar course of seasons prevail, with this difference, that the usual showers which usher in the monsoon begin in April and May; and the proper monsoon rains, which are more copious and certain than the eastern, begin towards the end of May and early in June, and continue until September. The sowing season, therefore, on the west coast should, weather permitting, be from about the beginning of May until about the beginning of June, if the heavy monsoon rains hold off so long, so as if possible to have the plant well above ground before the heavy continuous rains commence, which might cause the seed to rot in the ground, if it had not previously vegetated, but which, when above ground, will promote its growth. Here, again, allowing three-and-a-half months for the growing season, the pickings commence towards the end of September, after the rains are over, and fine bright weather established, and should continue until the end of the year, unless prevented by excessive heat or a dry scorching atmosphere.

18. The inland location of our present farms has the disadvantage of being too remote from the line of both monsoons, participating in both, but with too little of each to admit of our trusting entirely to either for our crop. This season we were so fortunate as to have early rains; I therefore, as already mentioned, acting on your suggestion, had some fields sown the beginning of June. These are now yielding their first crop, and if the subsequent experience of this season prove this to be a good plan, it shall, of course, for the future be regularly adopted, to the utmost extent the seasons will permit; and for the rest, our sowings must be delayed until July and August, thus delaying the harvest or picking season until November and December, at which season the plants, being refreshed and strengthened by dews and cool nights, preserve their health better, and continue yielding crop for a long period, that is, until the middle of April, or even May. By following these courses, our first crop is gathered before the eastern rains commence; and I expect that the energy of the plants being renewed by them, they will probably yield a good second crop about the beginning of the year. The later sowings come into bearing when the eastern monsoon is over, and continue yielding crop until April. It remains to be determined by subsequent experience which of the two crops is the most certain, and which the more profitable. But whatever be the result of these inland experiments, I anticipate more certain, and probably considerably heavier, returns from lands nearer the coast, subject to one monsoon only, as in that case the grower will not be perplexed by having so to adjust his operations as to avail himself of a double series of insufficient rains, in place of one ample monsoon. On the other hand, our present location gives us a double chance, as, should the first monsoon be insufficient, we have still the second to look forward to for a crop, and *vice versa*; if the first and more certain rains are early and full, we are comparatively independent of the second.

19. This

19. This plan of mutually adapting to each other the habits of the plant and course of the seasons constitute the true and simple method of naturalising any exotic we may be anxious to introduce into a new country, and I cannot help thinking that, had the principles above explained been sooner discovered and systematically applied to the culture in India of the Mexican cotton plant, we should ere this time have been relieved from all anxiety or doubt of the feasibility of successfully cultivating it in any inland district where the rains are pretty regular and of sufficient duration, and of the perfect certainty of doing so along either coast, where the range of temperature is nearly uniform, the air humid from the sea breezes, and the rains comparatively regular. The two series of facts appertaining to the habits of this plant and the course of our seasons, on which this plan of naturalising it rests, have been long known separately, but have not, so far as I am aware, been before so combined as to elicit principles applicable to its culture in all tropical countries where its introduction might be deemed desirable.

(True extracts.)

(signed) Robert Wight, Surgeon,
Superintendent Cotton Farms.

MINUTE by the Most Noble the Marquis of Tweeddale, dated Guindy, 11 December 1847.

I HAVE given my best consideration to both Dr. Wight's recent propositions, that contained in his letter of the 30th June, proposing to reduce the assessment on land-tax 50 per cent.,* and that now before the Government in his letter of the 26th October, "the establishment of two additional experimental farms" under his charge.

On the first, I have nothing to add to the remarks recorded in my Minute of the 3d September; and as I do not concur in the second, which has been the system hitherto in force, I shall give my reasons briefly for this opinion, and point out what I consider to be the system which ought to be followed, and which can, I think, alone determine the question whether Southern India can compete with America, and eventually become a cotton-field for the European market.

I shall first lay before the Government copy of a valuable paper, prepared by the American cotton planter in Tinnevely, Mr. Finnie, in answer to queries I had referred to him; and it appears to me, upon its face, to mark the difference between the intelligent practical farmer or planter and others, and to demonstrate the importance of this practical knowledge and experience above any acquirements which Dr. Wight or other superintendents may possess as botanists, &c., and the necessity, therefore, of entrusting the experiments entirely to intelligent practical men. All other agency only, I believe, retards the progress of the experiment, and leads the Government astray.

This has been, in my opinion, the case hitherto; the Government, practically unacquainted with cotton cultivation, and depending for its information on an authority equally inexperienced in practical agriculture, have been following speculative plans and views at a great cost, and with the results which experience has shown will always attend experimental farms, either in India or in any other country; for I am not aware of any one practical object yet attained by the Cotton Experimental Farm, though it has been in operation seven years, at a charge, with other experiments, up to April last, of Rs. 2,45,034. 14. 10. If I am in error in this, I should be glad to have pointed out to me the question which has been finally and satisfactorily solved, or the points demonstrated by the Experimental Farm.

See Statement
from Accountant-
general, dated
13 Nov. 1847.

It is, moreover, obvious to me that nothing can ever be determined in this country as to the culture of cotton, or of any other agricultural product, if the farm or the experiment is to be in the hands and under the guidance of a man who does not understand farming. For it will assuredly be found here, as it is in Scotland and England, that the same land, with the same seed, if cultivated by a man practically ignorant of his business, or only superficially acquainted with the wants of the plant, may not be able to pay the charges, and even be an utter failure and a dead loss, whilst in the hands of the agriculturist, who thoroughly knows his business in all its details, it would yield a crop which would amply repay the cost, and give a rent also.

This, it is evident also from Mr. Finnie's paper, is the case in America. A man must understand his business thoroughly as a cotton planter or he cannot manage a cotton farm successfully and profitably so as to stand competition; and if such agency is not applied here, it may and probably will be found that it is not the soil nor the plant which is in fault, nor the land-tax, but want of skill and a knowledge of practical causes, which leads to failure, and shuts the cotton of India out of the market of Europe. I am strongly of opinion, therefore, that all Government cotton farms, as now conducted, should be immediately relinquished.

In lieu of this I should advocate an agency, confined to practical planters.

I would not place large farms in their hands, but a few small patches of land as model fields, in the midst of the native cultivation; and I would urge on the collectors and their assistants, as a point of duty, the expediency of acquiring from the American planter a practical knowledge of cotton culture, as I am satisfied that it is to the native cultivator's management

* In correspondence with the principal collectors of Coimbatore, 25 per cent. is named.

II.
Madras.

management of the plant, and to his method of preparing it for the market under the most experienced superintendence which Government can supply, that we must ultimately look for the production of an article which shall find its way, at a remunerative price, into the British market. I should direct the attention of the agents to the improvement of the indigenous and all other species of cotton now generally cultivated, and require them to use every effort to induce the native agriculturist gradually to adopt tried and known approved modes of culture, inexpensive, and which can easily be engrafted on his own.

This must be the first step, it appears to me, in the improvement of the cotton, or of any other product of India which has to compete with the produce of other countries.

Mr. Finnie's representation of the nature of the properties of the cotton cultivators in the United States, shows the great advantages they possess in climate and in soil, in the moisture of the atmosphere, and in the power of carrying out a system of cultivation suited to the Mexican (or American) cotton plant, and how much more skill and intelligence in the culture of the plant itself than the native cultivator now possesses, is essential to obtain cotton of a superior quality and in greater quantity from the plant; and so to insure a better and cheaper article than is now raised.

More economical and experienced methods of gathering and cleaning the crop, and in preparing it for the market, will follow, and, in fact, must necessarily accompany this improvement in the culture, by means of gins of simple construction, and other machines, of which the value is known, and has been tested practically in other countries.

This further step in the progress of improvement should be effected by small establishments in each cotton locality, and not by large and costly gin-houses like that erected at Coimbatore; and it must be borne in mind that although foreign substitutes for cleaning cotton are most valuable, the native means of hand-picking, where so many women and children belong to the cultivators, will always constitute an essential element in preparing cotton wool for the market. The gins required should be provided, first, at the cost of Government till the people themselves adopt them, and then the Government should immediately withdraw.

To a more skilful system of culture and improved means of gathering and preparing the crop, it is essential that the Government in this Presidency, where there is no water carriage to any extent, should add good roads from the cotton districts to the ports, to give the cotton of Southern India a chance of competing with the produce of other countries in Europe; and it must of course be free from all duties, at least till it has established itself permanently.

The distances from the cotton-growing districts to the sea, or to the backwaters communicating with the sea, are so short, that the expense of making and keeping up the road would be trifling in comparison to the great stimulus that would be given to the cultivation of cotton. Most of the lines have already been examined and planned, and the engineer now only waits the orders of superior authority to carry them out.

I do not see that the Government can effect by its own agency more than these objects—an improved system of cultivation, better and cheaper means of preparing the cotton for the market, and better communications to the marts or ports.

But it appears to me that these will fail to secure the desired end, unless the manufacturer or his agent be placed in immediate connexion with, and becomes a purchaser from the cultivator. It is clear, from the information from all quarters—(see Mr. Mercer's statements at Manchester, confirmed by the following statement from Mr. Finnie), that at present an inferior and dirty cotton is the more profitable article to the native trader, and even to the European merchant.

Mr. Finnie remarks in a memorandum submitted to me, viz.:

"Here* the field is occupied by European agents who do business in a very loose way, and really do much harm. Instead of encouraging the people to bring clean cotton they give a premium indirectly on the dirtiest trash. The young men are those whom merchants employ for 150 rupees a month, and who know as much of business as their opportunities admit of. A contract is made usually by the house itself with the chetties for such a quantity of cotton of such a quality, and the very lowest sum is fixed: the chetty, finding he cannot get a price that would justify the delivery of such cotton as he has contracted for, agrees to it, well knowing that they must take such as he chooses to deliver to them at the time. He knows they have their engagements to meet; they have made their arrangements; a ship is perhaps waiting, the presses are idle, and he brings in his cotton to the agent, who has merely to receive it. The agent examines the cotton by plucking out a handful and letting the bundle pass; perhaps from caprice or ill-humour he rejects a bundle just as good as that he has taken. The chetty then gets angry and orders his people to stop delivering, as the gentleman will not take the cotton; the agent then takes the rejected bundle to get the chetty to proceed with the delivery; all goes on well for a time; in a zealous moment another bundle is rejected, the chetty threatens to throw up the contract, finding, perhaps, that others are much in want of cotton to make a remittance with; so that is all: it is for who will give an extra $\frac{1}{2}$ d. per lb.; and the agent is compelled to soften his tone, and entreat the great chetty to let him have cotton, as his employers will find fault with him if he does not get on with the work, &c. Well, but when the market is more dull, the chetty is not quite so independent; some cotton is rejected in a bulk, that is put on one side, and in a day or two is loaded on the bandies, and *marched round the town, and comes in fresh from the country!!!* and it is all taken as a very good article. But to give you some idea of the process in the interior.

The cotton is produced by the ryot of course; he is always in his banker's books, as deep

* Tinnevely.

deep in proportion to his means as his European master, and can do nothing without aid. The brokers or cotton cleaners, or gin-house men, are the middle ones between the chetty and the ryot: the chetties being monied men make an advance to the broker.

The broker is particular in classifying the seed cotton, and pays for it according to cleanliness, and then he has much of the trash and rotten locks picked out, not to make the cotton better, but because the rubbish chokes the churka* and prevents it from working. The good cotton is then separated from the seed, and this bad stuff which has been taken away from the good, is beaten with a stone to loosen up the rotten fibre from the seed, and then it is passed through the churka; and as the chetty contracts very closely with the broker, he must resort to the "devil's-dust" system to make his bread. The good cotton and this bad, "shocking bad" stuff, is both taken into a little room 6 feet by 6, which is entered by a low door, about 18 inches by 2 feet, and a little hole as a ventilator is made through the outer wall; two men then go in with a bundle of long smooth rods in each hand; a cloth is tied over the mouth and nose; one man places his back so as to stop the little door completely to prevent waste, and they both set to work and whip the cotton with *their rods to mix the bad and good together* thoroughly; thus a very tolerable article is turned out even after all this *bedeviling*; and if the people get a living price for the article they let it go as it is; but as is usually the case they are shaved so close that they are driven to resort to another means of realising a profit: they add a handful or two of seed to every bundle, and this is delivered to the chetties, and the chetties deliver it to the European agents, and the European agents save their exchange, and their object is gained; the cotton is taken by the manufacturer at a low price, because he knows not what he is buying."

It is manifest from this, and from the inferior condition in which the cotton wool of India continues to be sent to the British market, that the interests of the dealer or broker, and the merchant, are not identical with those of the manufacturers or the Government.

The object of the latter is to raise and bring into the market an article of such quality, and at such a cost, as may stand in permanent competition with American cotton. The merchant and agent has no object in the transaction but his immediate profits in any one year; and if the inferior article yield him as handsome, or even a better profit than a selected and better article would do at a higher price, he will doubtless take it off the growers' and native dealers' hands to any extent, and it is hopeless to look for any permanent improvement under this system. The cotton of India will not under it obtain a permanent footing and hold of the market, but will be often an unsaleable drug, or at the lowest and at unremunerative prices, except occasionally in seasons when the American crop may be below the average, and there may be an enlarged demand by the manufacturer.

If this be so, it is then certain that reducing the land-tax or cheapening the cost of transport, or any other measures the Government can adopt, will never, of themselves, improve the cotton wool of India, so as permanently to establish it in the British market.

To meet this state of things, it appears to me that the manufacturer must have his own agent, who thoroughly knows the article he wants, and is not to be imposed upon by brokers passing off an inferior or mixed description; and that he must be willing to offer such additional price to the ryot or dealer for the superior and well-cleaned cotton wool as will remunerate him. If a demand of this character be steady, and such as the ryot may depend upon, the superior article required will be produced at a cost which the manufacturer can afford, and, in a few years, to an extent now but little anticipated.

As a proof of this, it might be sufficient to refer to the cotton purchased by Mr. Mercer in Dharwar, at an additional price of two annas the maund, and declared to be worth 6 *d.* the pound; as also the fact, that when the Company's monopoly existed in Tinnevely, the commercial resident, their officer, never received any but good and comparatively well-cleaned cotton. No difficulty was then found in obtaining the superior article,† because it was the most profitable to the grower, though now in the same district, as Mr. Finnie's paper shows, the dealer and the ryot find it their interests to bring only an inferior article to the market; this is the article now exported.

See his statement
at Manchester.

The Chamber of Commerce at Manchester, at their late meeting, have turned the services of Mr. Mercer and the American planters employed by the Court of Directors to more advantage by their public investigation as to the probable success of the cotton cultivation of India, than if these gentlemen had been employed for half a century under the present system in the East; and I am firmly of opinion that the greatest drawback to the improvement of the products and the arts in India, consists in the absence of due encouragement to Her Majesty's industrious subjects, who possess capital and a knowledge of the mechanical arts, and have had experience of tropical cultivation in the West, to transfer their industry and knowledge to the East.

(signed) Tweeddale.

COTTON Cultivation, Climate, Soil, &c.

1. Is the cotton plant indigenous in America, or where does it come from?

1. The cotton plant is not indigenous in the United States. It is an established fact that from a very remote period the inhabitants of the tropical countries of Asia, Africa and America.

* Native instrument for cleaning cotton.

† See Statements appended (B).

America were well acquainted with the cotton plant, and used its wool in the manufacturing of useful and ornamental articles of clothing; and long prior to the period of the discovery of the Cape route to India, a manufactory of indigenous cotton had existed in the southern parts of Italy, where the soil is said to be favourable to its culture. Thus we are led to suppose that the southern latitudes of each quarter of the globe were originally blessed with this invaluable and really indispensable article.

The best and now almost only variety of cotton cultivated in Mississippi and Louisiana came from Mexico; hence the name "Mexican." There is no data to enable me to give particulars as to the precise time and circumstances of its introduction. It is characterised by a large white woolly seed, producing a soft, long fibre.

The cotton known as "Tennessee" and "Upland Georgia," is involved in some degree of uncertainty, and no data are on record, to my knowledge, of the circumstances, which I can narrate from tradition.* The plant is supposed to have come from the Grecian Archipelago, in the early settlement of the colony of Virginia, where it was cultivated; but in consequence of the season between the last frost of spring and the first frost of the autumn being too short, it did not prove a profitable crop, but was cultivated for domestic consumption, until a more favourable climate was found to produce the indispensable article better, and at a cheaper and more profitable rate. The early emigrants from Virginia to the then unlimited territory of Kentucky took with them the seed. The climate of that part, now known as Kentucky, was also found to be too severe for the delicate plant, and its culture was not persisted in after the more favoured south was settled. But, to proceed sequentially: that part of the then territory now known as Tennessee, was found to be more favourable to the plant than any climate hitherto tried, merely however from the slight increase in the length of the season. Here it subsequently became a commercial article of considerable importance, and known as Tennessee cotton, and acquired a character for cleanliness superior to the "Upland Georgia." The gin was at first unknown, of course, and the mode of separating the seed, as strange as it may appear to the modern machinist, was more primitive than the *churka* used by the people of this country, viz. the fingers; but then cotton was worth from 40 to 60 cents per lb., and, at that time, not an article of commerce; but this I consider an important fact, and establishes important data for the reflecting mind, whose duty it is to think for India, and shows clearly how a people may employ themselves when they have nothing to do. The seed was thus separated from the cotton by the negro men and children during bad weather, when no out-door work could be engaged in, and during the long winter evenings; the negro women at the same time being engaged in spinning and weaving, to clothe themselves and family. I hope I shall be excused for entering into these minutiae. The gin was gradually introduced, and one gin-house was established in every neighbourhood, which ginned the cotton for the neighbouring farmers, the owner of the gin receiving payment in kind; and this plan continues to this day in that part of the country; but now Tennessee cotton is scarcely known in the market; the luxuriant south has reduced it to a mere domestic product again, except perhaps that part called Western Tennessee, which borders on part of Mississippi. The plant was found to flourish better in the adjoining state of Alabama, where it soon became and continues a staple product, and where every planter has his own gin-house as in Mississippi.

As the early adventurers pushed southward, the northern part of Mississippi was discovered to be still more congenial to the plant; as they advanced south, the shrub became more and more prolific, and produced a finer quality, not from superiority of soil alone, but the more suitableness of the climate. Though soil exercises much influence in the quantity and quality of the cotton, climate is the great desideratum for the production of the great staple; a good soil in a favourable climate will produce a large quantity of fine cotton; a poor soil in good climate will produce little inferior cotton; and an unsuitable climate and inferior soil produce a very poor article in quality and deficient in quantity; but however rich the soil, unless the climate is propitious, a profitable crop cannot be produced. These remarks refer to the climate essential for the successful production of the American cotton. The climate of southern India produces a very good article of indigenous cotton, which only requires care in cleanliness to make it very useful and valuable; but I fear it is not suited to the Mexican variety; however, the people are planting at Aroopocottah and Sevacausey, and the matter will soon be decided; if we have rain enough it will succeed, if not, it must fail.

The Sea Island cotton came originally from the small Isle of Anguilla in the Caribbean Sea, and furnished the first seed to the early European settlers in the Bahamas; in two islands of the cluster, viz. Long Island and Exuma, they succeeded in producing a fine cotton. A small bag of the seed was sent to a gentleman in Georgia about the year 1785, when the establishment of the factory system, being the inevitable result of the invention, in 1769, of Arkwright's spinning machinery, created a constantly increasing demand for the raw material, and of course every effort was made to supply that demand from America as well as from India. As early as 1775 the first provincial legislature of South Carolina urged the inhabitants to attend to the culture of the cotton plant, yet little attention was paid to the counsel of a few far-sighted statesmen until forced on them ten years subsequently by the zeal and enterprise of one or two individuals. The seed was at first planted on the islands bordering the coasts of Georgia and South Carolina, and lying between

* For the correctness of which I will vouch.

between George Town in South Carolina, and St. Mary's in Georgia, extending from $32^{\circ} 30'$ to 30° of north latitude, through a space of about 200 miles; these islands were originally covered with the luxuriant growth peculiar to a southern clime, and abounded in the beautiful live oak and other evergreens. The soil being new, warm, and fertile, the plant grew most luxuriantly, but for some time did not produce fruit from over luxuriance, which prevented it from ripening before the frost killed the plant. The winter of 1786* being very mild, did not kill the root, and in the spring the shrub was pruned to the ground, and the shoots that grew up from the old roots were earlier in their development, sent forth their blossoms earlier, and matured their fruit sooner, and being by this time somewhat accumulated, yielded a crop seasonably. The plant gradually extended on the coasts of Georgia and South Carolina, but has never succeeded well to a greater distance than 15 miles inland. The fibre, it is said, loses in its essential qualities in proportion to the distance from the ocean beyond the distance above-mentioned. It is said, however, that it will produce pretty well to the distance of 45 miles inland: from the handful of seed first received, all the Sea Island cotton now supplied to England is annually produced.

The Sea Island quality is so valuable, and the seed so easily separated from the fibre, that a roller gin is used for the purpose. The saw gin would ruin the staple of so long and fine a substance.

The increasing demand for the article of cotton to supply the improved machinery of England, gave a stimulant to agricultural industry. The planters soon found they could produce a greater quantity of the seed cotton known as "upland" than they could possibly separate the seed from by the rude process then known. This set the mechanical genius of Mr. Eli Whiting to work, and in 1793 he gave to America the saw gin, justly celebrated as one of the most useful machines ever invented, and without which America could never have supplied to England one-tenth the cotton she now does; solely, however, from the paucity of population and consequent value of labour.

The invention of this machine gave a new stimulant to agricultural industry; the forests of the south fell quickly before the woodman's axe. The squatter was succeeded by the capitalist in rapid succession, and the country which only a few years ago was burthened with the most luxuriant wild vegetation and towering forest trees, is now sending forth its millions bales of vegetable wool to clothe and enrich the world.

2. Has the land on which the cotton grows been lately cleared from forest?

2. Yes, all land in the south has been comparatively lately cleared from forest. Cotton does not produce well the first year the land is cleared, in consequence of so much extraneous matter causing it to grow so rapidly as to run to long watery shoots, which yield no fruit. Indian corn is usually the first year's crop.

3. Is it (the land) peculiarly adapted to the plant?

3. Being a rich vegetable loam, with a deep clay sub-soil, and being situated in a favourable climate, the land is peculiarly suited to the cotton plant.

4. Is the climate damp? Does rain fall continuously, or in occasional showers?

4. The climate all over America is damp, but in the southern states it is very humid, causing heavy dews and thick fog at night; but the appearance of a bright sun, which usually prevails in the morning and during the whole day, soon dispels both dew and fog. The rains may be characterised by occasional heavy bursts and frequent showers during spring, summer and autumn; and during the winter three heavy white frosts, and hot sun in the day, succeeded by a heavy rain, extending at times from one to ten days' duration, but generally only one day, is proverbial.

5. Is the land manured?

5. When required the land is manured. The old poor land is manured by running a deep furrow early in the spring, between the old rows, which are filled up with the old cotton stalks, and the poorest spots have other manure also applied in the furrow, of which well-rotted cotton seed is the best. We have so many better things to feed cattle on in America, that the cotton seeds are of no value; all the manure is then covered up by running two furrows, so that the mole laps, forming a slight ridge over the manure, which is allowed to lie until the planting season, by which time it is well rotted. The advantage of this is twofold: the land is manured, and half the ploughing preparatory for planting is accomplished. This work, as I have said, is done very early in the spring, before the frost has ceased to fall; and when the danger from frost has ceased, the ploughs throw two or four furrows, one or two, according to the width of the row on either side, to the little ridge already formed; leaving, if the rows are wide, a small unbroken space in the middle to save time, which is broken out subsequently, the great object being to get the seed in the ground as early as possible.

6. Are the cotton cultivators experienced agriculturists, who thoroughly know the nature and wants of the plant?

6. The planters make no pretensions to science, as understood in this country; that is, they say but little about the physiological phenomena which pertain to plants. But that they

* Ure's Cotton Manufactory.

II. Madras.

they are well aware of the requisition of the plant, is proved incontestably by the bales they turn out, and the dollars they get in for the crop; they know that the functions of respiration, preparation, and digestion are essential to the health of the plant, and that the action of the atmosphere on the leaf assists or retards these functions, as it is favourable or unfavourable. Long-continued rain, without the necessary quantity of light, is unfavourable, because light is essential to the decomposition of the carbonic acid, the extrication of nitrogen which plants contain, and the due performance of insensible perspiration; and, *vice versâ*, where the due proportion of rain or moisture is withheld, and the solar light allowed to act in full force on the plant, all these functions are acted upon in excess, the health of the plant is interrupted, and, being deprived of sustenance from the atmosphere through the leaf, and, if the drought* is severe from the ground by the tap root,† the plant loses its vital force, and cannot produce fruit. A perceptible humidity in the atmosphere is essential to the production of a profitable quantity and a fine quality of cotton; excessive moisture or excessive drought causes the plant to shed its forms or embryo fruit.

The plant fills the land so full of its own excretions as to make it unsuitable for its reproduction in a healthy state after a few years; but that it exhausts the ground, I doubt; for if we plant the land which is said to be exhausted in Indian corn, it will produce a fine crop, and the next year it is fit for cotton again. The cotton plant is "topped," that is, about an inch of the main stem is pinched off when it is found to be growing too luxuriantly,‡ this checks the growth upwards, and causes it to spread more; and, instead of running to weed, it throws out forms and flowers in greater abundance. The year 1838 was the driest year I ever saw or heard of, and during the early part of the season everybody thought the crop would fail totally; the plant, however continued to produce during the drought, but the fibre was of inferior quality, though we had heavy dews all the time. At length fine rain set in, and the frost was very late§ in falling, and consequently the crop proved the largest which had been made at that time in that part of the country, viz., about Natchez.

7. Are there great advantages in water carriage and roads to connect the markets or ports with the fields of produce?

7. America has greater advantages in water carriage than any other country in the world, and many advantages in railroads; but the roads in the interior of the country are very bad, and cotton, in plantation half-pressed bales, is often carried 150 miles over these bad roads to a railroad or to the Mississippi river, but oftener much less to its tributaries, which intersect the country, and which are navigated by keel and flat boats built on the spot, to a point where steamers come and relieve them of their burthen; but often these boats go to the Mississippi river to discharge their cargo. The profits of the crop decrease in proportion to the distance from the rivers, whether main or tributary streams, but the cattle and waggons being employed in the production, or for plantation purposes, are used to gin and press and convey the article to market at a time when they are not required for other purposes, and consequently the additional cost is trifling, or, as is almost always the case, there are large herds of horned cattle that require to be fed but little when not at work; these serve to convey the cotton in waggons to the nearest town or shipping port, at but little actual additional expense to the planter; but if a merchant purchased the cotton and hired the carts, it would be ruinous.

8. In what latitude does the plant best thrive?

8. It has been found to thrive best between 33° and 30° of north latitude; above the former the seasons begin to shorten; that is, the time between the last frosts of spring and the first frost of autumn gradually lessens, so that as you advance north, the crop decreases, because the season is too short to produce a full one. Consequently the cultivation has been altogether abandoned in Kentucky, and almost so in Tennessee, where it is now only, as I have said, cultivated for domestic purposes; and where, within my recollection,|| in some neighbourhoods, the negro men and boys were assembled during the long winter evenings in a large room around a blazing fire, to hand-pick the seeds out of the cotton which the women were to spin the next day. Gins were not general then.

Above the latitude I have mentioned the cotton is far superior to that produced above, and there is a great disadvantage in advancing far below 31° 30', in consequence of the excessive humidity of climate causing the plant to grow so luxuriantly as to run wholly to weed without

* Mr. Lindlay says, a plant loses but little by perspiration in dry weather: it must, I think, continue to lose until exhausted. Dry weather in the tropics is to a plant what winter is in cold climates, the time of rest. On referring to Lindlay, I find he means that a plant loses but little by perspiration in dry weather, because that is the time of rest.

† In dry weather the tap root runs deep into the ground in search of food; if it finds it, all is well; if not, it sickens at once. In moderate moisture many laterals, which receive their food from the surface, are thrown out.

‡ The plant, grown from three to ten feet high, forming a round and beautifully-proportioned shrub, in proportion to the strength of the land.

§ Frost may be expected about the 20th of October; every day's delay in its fall is of the utmost importance to the cotton crop. The season is about seven months for the production of a full crop of cotton; viz. from 1st April to 31st October, less 10 days in case of frost; earlier after frost the plant ceases to produce, but the matured bolls continue to open. I have even known new leaves form, and flowers to put out in a mild winter, after an early frost had checked the growth of the plant, and killed the old leaves; and not unfrequently a few of the new bolls mature, and produce cotton.

|| This is very indefinite; and I must add that the period embraces 25 years.

without producing fruit; here sugar takes the place of cotton as a staple product. Between 36° and 30° of north latitude lies the whole cotton-growing region of the United States before the admission of Texas; but that newly acquired province extends to the west, and I believe no part of it comes below the line I have given, which will be found to embrace Louisiana, Mississippi, Alabama, Georgia, South Carolina, part of North Carolina, and Florida, all of which have the blot of slavery on their escutcheon.

II.
Madras.

9. Does the cultivation require large capital, and is the crop uncertain?

9. Any sum from 20,000 to 200,000 dollars may be invested in an estate; the first will yield a handsome profit if well managed by the owner himself, but will not justify the employment of a superintendent. The latter sum, well laid out, makes a handsome property and is as much as one superintendent, whether owner or employer, can look after in detail, with the assistance of his negro drivers; though there are many planters who own several such estates; but the details of each are conducted by a superintendent whose reputation is involved in the success or failure, or, in other words, profitableness or unprofitableness of the estate in his charge. I have never heard of the general failure of a crop from the effects of climate alone; there are poor and rich lands interspersed through the whole country except immediately on the river, and it is wisely regulated that the poor lands produce the finest crops in a wet season, and the new rich hill lands and all river bottom lands always produce the best crops in a dry season; that is, what we call a dry season. In estimating the climate, it must be borne in mind that in America we plant in the spring in land that has been saturated with all the winter rains, and it is often difficult to get the ground dry enough to plant nicely, and when planted, a good rain is essential to a perfect stand of plants. We usually have rain every few days during the planting season, and if there happens to be none after a field is planted, the plants come up irregularly; or, if there is a very heavy rain on newly sown cotton and a hot sun immediately afterwards, and the ground is old and clayey, it bakes over the seed, and becomes so hard that the plant cannot make its way through it, and a light wooden tooth harrow is often run over it to break the crust, to let the young plants appear above ground. A planter is a proverbial grumbler in regard to the weather, always too dry or too wet; but if he does not get rain every six or eight days during the whole ploughing and hoeing season he grumbles and frets and loses all patience to see his "hands" working to so great a disadvantage in the hard land, and wearing out his hoes and files* and keeping his blacksmiths always employed in keeping the ploughs in order; and then the planter in the old hills or uplands is in an agony because his plants do not grow in dry weather, while his neighbour of the river "bottoms" is raving because his cotton grows too fast in wet weather. Therefore the crop is always pretty regular, except when attacked, as was the case last year (1846), by a bug, and sometimes by a caterpillar; this casualty seldom happens; the crop may be relied on as certain as any other commercial transaction.

10. Is much labour and care necessary in raising the crop?

10. The cotton planter's life in America is one of incessant, but most pleasing† labour and care; great care is necessary to ensure a good and regular stand of plants in the first place, and in the gathering season constant attention is essential to the cleanliness of the cotton; though once the hands are under strict discipline, the planter has but little trouble. To commence with the new year, after the negroes' week's holiday from 24th December to the 1st January is over, to get the usual annual piece of new land cleared, and the old land cleaned up and ready for the plough, is the great object of the planter, and a rush is necessary to accomplish it if he has land equal to his hands; and if he has not, and is worth the name of a planter, he will clear it. The axe, with the sturdy negro's euphonious grunt, resounds through the hills or river bottoms, as the case may be, and the valleys or river channel echo the sound. The monarch of the forest falls for fences, while his less dignified neighbours are ringed or "deadened," and the undergrown and thick cane are cut flat to the ground, and when dry fire is set to it and it burns off clean, and before the embers are cold, it is planted in the "staff of life," Indian corn; which, not being so delicate as cotton, is planted first, as the frost does not kill it entirely, though it may be bitten off. The seasons are tolerably regular, and the planter lays off his work, and decides a month before-hand the precise day he commences any new or important operation; the weather sometimes frustrates his plans, but every "spell" of fine weather is taken advantage of by a few steady ploughmen to run the furrow of which I have spoken between the old cotton rows, while women and children follow and beat down the old stalks, and put them in the furrow; and if necessary the carts follow with the manure, and then the ploughs follow to cover it up at once, as already mentioned. I am describing an estate of one hundred negroes, to manage which well, requires a very good business man, and military discipline must be prescribed, and then all things go on happily and quietly; but to continue, as I have said, a rush is required to get every thing ready for the planting season.

The 1st of April is the great commencing day; many commence sooner, if possible, by which time there is but little danger of frost, though a slight one sometimes falls after that date; but at that time every available "plough team" is put in harness, and often the carriage horses

* The files to keep the hoes sharp. † I wish I could say as much for India.

II.
Madras.

horses are pressed into the laborious service of the plough. The few additional furrows, always an even number of two, four, or six, according to the width of the row, to preserve equal width, are thrown to the slight ridge already made; the land is ploughed in this way that the "water" or closing furrow may drain the surplus spring showers; the drill follows immediately, and opens the ridge; an active woman follows, keeping pace with the horse, and sows the seed in a beautiful straight line in the little furrow opened by the drill. The harrow follows immediately after, and covers the seed lightly,* which closes the work until the plants are up (the planting season is from 1st to 30th April), when the "scraping" season soon comes on, and upon the neatness and accuracy of that operation mainly depends the crop. To secure a "good stand," that is, to leave the plants at regular intervals in width in proportion to the strength of the land, is the great point; and for this purpose a few careful negro drivers attend to that solely, following the hands to see that neither too much nor too little is left. The plants, being sown in rows varying from four to eight feet, according to the quality of the land, must be left in the drill in the same proportion from six to 12 inches, or even 15 inches when the land is very rich. When the cotton first comes up it stands thick in the drill, and the hoe is passed through the mass of plants, and cuts away in width as the hoeman is directed by the planter, leaving two plants in a place, thus : : : : : If both live, one is pulled out at the next hoeing. In poor land, cotton, it will be observed, is planted close together, but in rich land wide apart, reversing the order of grain husbandry. A plough follows the scrapers, and runs a slight furrow on both sides, and throws a little dirt gently among the plants, to replace that which had been taken away by the hoe; alternate ploughing and hoeing continue in rapid succession, making the round in 15 or 20 days until the pods begin to open. Time can scarcely be found to gather the "fodder" from the Indian corn, or the grain itself when it is ripe.

The gathering season commences about the middle of July, when only a few first formed bolls begin to open; but before these have been gathered from the whole plantation the beautiful snow-white tufts of vegetable wool begin to appear, thickly interspersed amongst the deep green leaf and beautiful yellow flowers. From that time until Christmas there is no cessation of labour; six days in the week from day-light till dark the hands are in the fields, except when interrupted by rain.† The day's gathering is then weighed, to see that each hand has done his duty,‡ and taken to the gin house in waggons; and the day's work is done. The cotton is spread on plank scaffolds the next day to dry, and a few superannuated negroes pick it over, and take out the trash that may accidentally have got mixed with it. The seed cotton goes to the gin almost free from trash, and consequently comes out clean.

11. What are the expenses in detail of cultivating an acre of cotton?

11. It is impossible for any one to answer this question accurately, from the fact that there are a number of people employed as slaves who receive no wages, and who are employed not only in cultivating cotton, but produce other things; no account or estimate per acre of cotton has been or can be made. The estimate is always spoken of roughly, at so many bales to the hand, varying from four to eight, according to the ability of the planter and the season, not including the other things produced for home consumption. All thrifty planters produce all their coarse supplies, such as bread and meat, vegetables, &c., for the negroes' food. The negroes' clothing was formerly also made at home, but the machinery has quite supplanted the hand-wheel. The planter does not realise more than eight per cent. now for his money, but then he lives on the produce of the estate, except such luxuries as his habits and tastes require. The cotton produce is almost all clear profit to the planter.

12. At what distance should the plants stand from each other?

12. This question has been answered in reply to Question 10. In this country three inches in the drill and two feet between the row is sufficient in the best land.

13. What is the amount of an average crop per acre?

13. The usual rough estimate is a bale of 400 lbs.; some land will produce it; but I think the average is about 300 lbs. § of clean cotton to the acre.

14. What the average periods of failure of crops?

14. The crop never has failed yet, though speculators get up a cry of failure every year to raise the price when they have a stock to sell, and when they wish to buy, they exaggerate the probable produce of the season to lessen the price until they have laid in a supply.

15. What

* One steady ploughman, with his horse and drill, one woman to sow the seed, with a little boy to wait on her, that is supply her with seed, and a large boy with his harrow, drawn by a horse, will plant 10 acres per diem.

† During the "picking" season dry weather is most desirable and advantageous; wet the reverse.

‡ A hand in America will pick from 150 to 350 lbs. of seed cotton; average, in fine weather, about 200 lbs. In India, 15 lbs. is the most I have ever heard of a "hand" gathering; and 7 to 10 lbs. is the usual day's work here.

§ The seed cotton yields of clean cotton from 30 to 31 per cent.

15. What the average expense of the machinery and other appliances for cleaning, screwing, and preparing for the market the average crop from one acre of land?

Gin-house	from 2,000 to 2,500 dollars.
Two gins	from 350 to 400 each, two gins 700
Single iron screw press	from 500 to 550
Drawing machinery fitted up	from 500 to 600

4,350

15. This is again too close a calculation: a gin-house, moving machinery, gins and press will cost about 4,500 dollars, and all this, with perhaps the exception of the price of one gin, the planter must lay out, if he only produces 100 bales of cotton, while 600 bales might be cleaned and pressed by the same machinery if worked during the whole season. The mode of procedure in America and in India is so different, that the most exact estimate in detail of a gin-house and the necessary machinery would afford no criterion for the arrangements which would prove most beneficial to India. Here we must give the people something simpler than the gin and large gin-houses for their own use for their own cotton. In fact the seeds are so small, that if we place the grates close enough together to prevent the seed passing through, the saws bring the cotton so much in contact with the bars as to cut it to such a degree that it is much injured in staple. The American cotton and the American gin must go hand in hand; where the first fails, the latter, I fear, would prove useless.

The political economy which follows the series of questions, however correct in theory and in practice in England, does not apply with equal force to the practical operations in the Southern states of America. There every planter is lord of his own broad acres, from the squatter, with his $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ "section," or a "section" of 640 acres, to the capitalist with his 5, 10, or 20,000 acres in culture; and on speculation land rent is not known, nor do we calculate the value of an estate so closely. A planter who is compelled to sell takes what his neighbours are disposed to give him, while a very wealthy neighbour will offer a very high price for a good plantation in his immediate neighbourhood, and pays perhaps much more than the intrinsic value, because he wants it for an especial object. Besides, $\frac{2}{3}$, or often $\frac{3}{4}$ of an estate is forest, consequently the whole value cannot be estimated according to the produce of that which is under culture: land has no fixed value. I am sorry I cannot give a more satisfactory statement regarding the price of land which, for some years before I left home in 1840, fluctuated with the price of cotton; indeed, every thing rose and fell with the rise and fall of the great source of wealth. For some years cotton has fluctuated between 8 and 15 cents in the American markets. As the price of cotton may afford the data expected from the price of land, I am happy to be able to state the result of a meeting of the most intelligent and distinguished planters, called to consult together to determine how they could best counteract the efforts made to get a supply of cotton from India. The conclusion was, that as long as they could get 8 cents (4 d.) per lb. for their cotton, delivered at the nearest market, they could afford to produce it; but if a supply from any other quarter could be procured for less than that sum, they would be completely "flooded," and must turn their attention to other products: add to this 4 d. about 1 d. per lb. for expenses to England, and we have the minimum at which it is said America can produce the article; and now all you have to do in India is to produce an equally good article at a less cost. I take a more charitable view of the subject than that which the jealousies of the two nations permit them respectively to take. The consumption of cotton will increase almost or quite as fast as the product increases: do what both nations may or can, all good American cotton will ever find a market, and so will all good Indian cotton. America, with all her advantages of enterprise, industry, climate, soil, rivers, steam-boats, and railroads, will not be easily supplanted. I, however, believe that India possesses territory equal in extent to the whole cotton-growing region of America; that will produce a pretty good article of "New Orleans cotton;" but, to make it successful, the people themselves must cultivate it; where the American cotton succeeds, the American gin will answer to separate the seed. I have before said, a dry climate will not produce so good a quality nor so large a quantity as a more humid one will. The poorer the land, the more rain it requires to enable it to yield. The interest of the amount invested in the labourer (a full hand) in America, and the actual cost per annum for his maintenance, will pay for nine able-bodied men in India; and yet the American labourer (as one of many) not only provides for the comfort of his master and supports himself, but enriches his master, while the nine Indian labourers will not produce enough as our servants to pay their own wages, much less the land rent, and afford a profit to their employer. Yet the difference in the actual cost of production, and quantity and quality of the article in America and in India, is more than counterbalanced by the advantages which the Indian labourer possesses where the climate is favourable, and when he does his own work. Therefore our efforts ought to be exerted in directing the people in the right channel; and notwithstanding the small quantity which India can produce per acre, and the less valuable quality, she has many advantages over America in numerical strength, and the little cost required to support the people therefore; it only requires that that strength should be exerted on any well-devised plan to insure a reasonable degree of success. I have given the minimum at which it is said, by the best informed on the subject, that cotton can be produced; and as the contest is one of pence alone, it is, I think, important. We must give due attention to the indigenous cotton where that is produced naturally, and ascertain where the climate is generally suited to the "New Orleans cotton," and we shall yet accomplish

H.
Madras.

plish all that can reasonably be expected for India. My humble opinion, however, is, that our best efforts can only secure for India a share of the immense advantages the great staple affords; we may do India much good, and supply a large quantity of cotton to England; and indeed it will require our best efforts to retain for India even the share she ought of right to have in supplying the market.

I conclude the allusion in reference to the value of land, land rent, cost of production, &c., was made with a view to elicit some data as a basis on which to form an opinion regarding the cotton-land rent in this country.

There is no analogy between the American and Indian modes of taxation; we have no direct land tax in America, and, thank Heaven, no export duty. The land tax of India is so little understood in reference to its effect on the people by the best informed on the subject that it is difficult to handle it satisfactorily. I may, however, without pretending to a complete knowledge of the subject, or attaching too much importance to my own views, remark, that I think it is only in individual cases that the cotton land-tax is oppressive to the ryot; where that is found to be the case, of course the burden should be removed; but that a general reduction, or a total abolition of land-tax would be beneficial to the ryot, or advance the culture of the cotton plant, I doubt. The ryot goes in debt to the extent of his credit; if his means are increased, his credit is also, and he avails of it to the fullest extent, and his banker reaps the benefit. Therefore if Government did not collect a pice of revenue, the "poor oppressed Indian ryot" might cease to be the theme of declaimers and grievance-mongers, but he would still be the "poor oppressed Indian ryot;" and the only difference would be, that he had changed his European master, who tries his best to deal fairly by him, for a ruthless monied countryman, whose sense of justice is not very acute.

The tax that is really felt is the export duty. I am in principle opposed to whatever discourages domestic industry and foreign trade. That an export duty on the produce of the land, which has paid a sufficient duty, is subversive not only of all individual rights, but the rights of the state are imperceptibly but not the less permanently injured, by enabling other countries to supplant it in the foreign market, are established facts in my mind.

The questions submitted to me were so well arranged, and embraced so fully all that required to be treated on the subject, that I have retained them as headings, without confining myself to the mere answer. I considered that a direct answer, without the explanation which would convey to the mind the wherefore, would be very unsatisfactory.

I have therefore tried to draw as complete a picture of an American plantation as I could, without entering into minute details. The happiness of seeing the work of our hands prosper on a well-regulated plantation in America might be strangely contrasted with the unproductiveness, and consequent annoyances and dissatisfaction, we experience in India. I intended to draw up a sketch of the rise, progress, decay, and present state of the cotton culture and trade in India, with suggestions for its improvement; but this article has grown to so unreasonable a length, with the want of access to accurate sources of information, that I am constrained to abandon the idea for the present.

(signed) Thomas James Finnie,

Camp, Courtallam, 16 November 1847. American Cotton Planter.

MINUTE.

DR. WIGHT's suggestion, that two additional cotton farms should be established, one on each coast, to prove experimentally the extent to which climate affects the successful cultivation of American cotton in India, should, in my opinion, be at once adopted. The points discussed in his letter of the 26th October 1847, and its enclosures, are of the very essence of the costly experiment which the Honourable Court have sanctioned, and should be practically investigated in the manner he proposes.

I am convinced that the mercantile community at home will not be satisfied that the experiment has been fully carried out until Dr. Wight's propositions have had a fair trial; and I am much mistaken if his sober and matured judgment does not tend to more practical good than the off-hand dicta of Mr. Finnie.

Guindy, 17 December 1847.

(signed) H. Chamier.

MINUTE.

I HAVE already, in my minute of the 13th September last, stated it to be my opinion, that the Government were expending very large sums of money without any prospect of adequate benefit being derived from it, in supporting the experimental farm at Coimbatore, and that I thought that the farm should be abandoned.

In this opinion I am more strongly confirmed by the statements set forth in the minute of the Most Noble the President, under date the 11th instant, and in the paper of Mr. Finnie, annexed to it; and I therefore fully concur in the proposition that the present Government cotton farm should be immediately relinquished, and that, in lieu of the present system, an agency should be established confined to practical planters.

Adyar, 18 December 1847.

(signed) H. Dickinson.

Revenue Department.

EXTRACT from the Minutes of Consultation, under date the 8th January 1848.

READ again letter from Surgeon R. Wight, Superintendent Cotton Farms in Coimbatore, dated 30 June, and recorded in Diary to Consultation, 3 August 1847 (No. 859).

Read also the following papers :

From Surgeon R. Wight, Superintendent Cotton Farms, Coimbatore.

[Here enter 4 August 1847, No. 990.]

Minute by the Most Noble the President.

[Here enter 3 September 1847, No. 1151.]

Minute by the Honourable Mr. Chamier.

[Here enter 8 September 1847, No. 1152.]

Minute by the Honourable Mr. Dickinson.

[Here enter 13 September 1847, No. 1153.]

From Surgeon R. Wight, Superintendent Cotton Farms, Coimbatore.

[Here enter 24 August 1847, No. 1053.]

From the Chamber of Commerce.

[Here enter 25 September 1847, No. 1179.]

From Surgeon R. Wight, Superintendent Cotton Farms, Coimbatore.

[Here enter 26 October 1847, No. 1307.]

Minute by the Most Noble the President, with a memorandum and statements appended.

[Here enter 11 December 1847, No. 1526.]

Minute by the Honourable Mr. Chamier.

[Here enter 17 December 1847, No. 1527.]

Minute by the Honourable Mr. Dickinson.

[Here enter 18 December 1847, No. 1528.]

Resolved, That the above correspondence be brought under the consideration of the Honourable the Court of Directors, and, with reference to the minutes recorded by the members of Government on the several propositions of Dr. Wight, that the orders of the Honourable Court be solicited, whether the Government experimental cotton farm at present maintained at Coimbatore shall be relinquished for an agency confined to practical planters.

(signed) H. C. *Montgomery*,
Secy. to Government.

(A true extract.)

(signed) R. G. *Clarke*,
Dy. Secretary to Govt.

Revenue Department, 4th July (No. 11) 1848.

Our Governor in Council at Fort St. George.

1. THE letters of the dates noted in the margin,* report your proceedings Cotton.
connected with the measures in progress for improving the cultivation of cotton under your Presidency.

2. In the course of this correspondence, you have submitted three questions for our decision : first, a proposal by Dr. Wight that a remission of 50 per cent. Letter dated
should be given on the assessment of all lands applied to the cultivation of 14 Jan. (No. 7)
American cotton ; secondly, the proposed relinquishment of the Government 1848.
experimental cotton farm at Coimbatore, and the substitution of an agency confined

* Letter dated 8 February (No. 7), 1847 ; 19 March (No. 16) 1847 ; 2 June (No. 35) 1847 ; 15 June (No. 37) 1847 ; 3 September (No. 47) 1847 ; 18 November (No. 56) 1847 ; 6 December (No. 60) 1847, paras. 5, 7 and 8 ; 14 January (No. 7) 1848 ; 17 January (No. 14) 1848 ; 25 January (No. 17) 1848 ; 3 March (No. 22) 1848. Public Letter, 12 October (No. 21) 1847, paras. 18 and 19.

II.

Madras.

* Letter dated
17 Jan. (No. 14)
1848.

confined to practical planters;* and, thirdly, the proposed deputation of Mr. Finnie to England, for the purpose of consulting with, and ascertaining from, the manufacturers there, the extent to which they are disposed to patronise the measures urged by them in regard to the cotton of your Presidency.

3. We cannot give our consent to the proposed remission of one-half the assessment on lands cultivated with American cotton, both because such a measure would be an obvious violation of the general principle, which prescribes that the assessment shall be regulated by the capability of the land, without any reference to the particular description of produce which may be raised on it; and also, because we are of opinion that it would fail in producing the expected result. It is possible that land might be cultivated profitably with American cotton, when only half the usual rate of assessment was taken, although it might cease to yield a profit when the rates were again raised to their original amount. The reduction of the rates would then only have the effect of forcing a factitious cultivation, which under ordinary circumstances could not be carried on. It is, moreover, our belief that no such reduction is required in the province of Coimbatore. There are strong grounds for believing that the out-turn of American cotton per acre is much larger than that of the indigenous cotton, and it is certain that the former is much more valuable in the home market. The difficulty which, it appears to us, has lain in the way of inducing the ryots to extend the cultivation of American cotton, has been the want of a steady demand for it in the district, or at least the apprehension that it would not find a ready market when produced. This difficulty is for the present removed by the permission which has been given to Dr. Wight to purchase American cotton from the ryots on account of Government at remunerating prices. These purchases should not at present be discontinued; but we are satisfied that no satisfactory and permanent extension of the cultivation of the American cotton will be attained, until the persons most interested in its production shall take the matter into their own hands, by locating in the districts competent agents empowered to purchase from the cultivators themselves such cotton as may be produced of a description suited to the wants of the manufacturers in this country.

4. We concur in your opinion of the expediency of relinquishing the Government cotton farm at Coimbatore. We consider that the object with which this farm was established has now been fully attained, by demonstrating that the soil and climate of that province are capable of producing cotton of a description in every respect suited to the wants of the British manufacturers. The next point which requires solution is, whether cotton of this description can be produced at such a cost as to enable it to compete successfully with the cotton of America in the home market. This point can only be satisfactorily settled by leaving the cultivation in the hands of the ryots; and not even an approximation to it will be obtained by carrying on the cultivation at the expense of Government, and under the superintendence of Government officers. The Government should, however, continue to afford its aid by distributing American seed, either gratuitously or at a trifling charge, to those willing to cultivate it, by authorising the grant of small prizes for its successful cultivation, as we observe you have already done; and by using all the means in your power to introduce improved methods of cleaning the cotton from the seed, without injury to the staple.

5. "The agency confined to practical planters," which you propose to substitute for the experimental farms, is not clearly explained; but we gather from the Marquis of Tweeddale's minute of the 11th December 1847, that he would have "small establishments in each cotton locality;" or, as he elsewhere expresses it, "small patches of land, as model fields in the midst of the native cultivation." If the object of this measure be to ascertain by actual experiment whether in any particular locality the soil and climate are suited to the production of the American or any other description of cotton, we see no objection to its being tried on a small scale; it appears to us, however, that much information bearing on this point will be obtained, when the results of the experiments which you have authorised Dr. Wight to institute through the several collectors of land revenue, with the view of ascertaining the most advantageous time for sowing the American cotton, shall be reported.

6. We

Public Letter dated
12 Oct. (No. 21)
1847, p. 18 and 19.

6. We have considered your proposal to depute Mr. Finnie to this country, with the view of entering into communication with the manufacturers; but as we do not see that any advantage is likely to accrue from such a proceeding, we must decline to comply with it.

7. We regret that Mr. Petrie, the engineer in Coimbatore, should have been compelled by sickness to return home. As a mark of the sense which we entertained of his meritorious services, we presented him with a donation of 100*l.* (one hundred pounds).

8. We transmit herewith copies of the account sales of the cotton received per "Elizabeth Jane" and "Olinda."

9. We also forward, as requested in your letter of the 15th June (No. 37), 1847, copy of the account sales of the cotton received per "Lady Flora."

We are, &c.

(signed) J. L. Lushington.

A. Galloway.

London, 4 July 1848.

EXTRACT Revenue Letter from Fort St. George, dated 28 July, No. 56 of 1848.

Para. 4. WE take this opportunity to acknowledge the receipt of your Honourable Court's letter, No. 8, dated 15 March 1848, giving cover to one from the Manchester Commercial Association, suggesting measures for promoting the cultivation of a superior description of cotton in India. We communicated these papers to Dr. Wight, and, through the Collector of Tinnevely, to Mr. Finnie, as well as to the Board of Revenue. To the observations in the letter from the Manchester Commercial Association, Dr. Wight has replied in his communication of the 2d June 1848, which is transmitted with the present correspondence, and to which we beg the attention of your Honourable Court, and to the orders recorded thereon in our resolution of this day's date. We also solicit your favourable consideration to the application of Dr. Wight, which is referred to in para. 4 of these proceedings, on behalf of his two assistants, Messrs. Sherman and Cuxton, who he recommends should be placed on a better footing as regards allowances, and to his proposition to increase the salaries of the East Indian lads employed on the establishment.

From Surgeon *R. Wight*, Superintendent Cotton Farms, Coimbatore, to Sir *H. C. Montgomery*, Bart., Secretary to Government, Fort St. George.

Sir, Coimbatore, 2 June 1848.

1. I HAVE the honour to acknowledge the receipt of Minutes of Consultation, No. 518, under date 13th May 1848.

2. Adverting to the regret expressed as to the insignificance of the quantity of New Orleans cotton hitherto obtained from this district, and the desirableness of offering sufficient inducements to native growers to insure extensive cultivation, I beg leave to state, for the information of the Right Honourable the Governor in Council, that I have not been sparing in my offers of high prices for the exotic article.

3. I am informed that native cotton is currently sold in the village fairs throughout the district, for from four to six annas the maund of 25 lbs. brought to the gin-house; it is now eight annas. I have made known as extensively as I can that I shall purchase all first class New Orleans cotton offered for sale at the greatly enhanced rate of one rupee for the same quantity; but as yet, so averse do the natives seem to depart from established customs, I have only been able to persuade a small number to grow it for me. The number is certainly annually increasing, and hitherto, with one or two exceptions, the result has been so satisfactory that all who have once grown it continue to do so; and this season I have already issued more seed than in any previous one. I am, therefore, in hopes that, for the future, it will more rapidly extend.

4. The cotton markets in the district have for the last two seasons been so sparingly supplied with purchasers, that, but for the order of the Honourable Court for 6,000 rupees of gin-cleaned native cotton, the trade must have been almost at a stand still. In the hope of directing the energies of growers into this new channel, I have been seriously thinking of proclaiming throughout the district that for the future I can only buy American cotton, but will undertake to purchase all of that description offered for sale. There are strong objections to this course, but still, now that so many offer their cotton in the first instance for sale at the gin-house, it may be attended with beneficial results.

5. These explanations will, I trust, show that our failure to induce the ryots to cultivate American cotton, does not originate in withholding due encouragement; a ready market and high prices being provided for all comers.

II.
Madras.

6. To the paragraph regarding roads, I beg leave respectfully to solicit the attention of the Right Honourable the Governor in Council; that between Coimbatore and the sea-coast being nearly, if not altogether, impassable for carts for three or four months in the year, owing to its crossing several deep unbridged streams, which bandies cannot ford without wetting their loads; much of the road being otherwise so heavy and bad, after every fall of rain, that it is uncertain whether I shall be able to send a single bale to the coast between this time and November, though I shall probably have nearly 500 to send.

7. On the subject of early sowing, as the Government is aware, no effort on my part has been spared to obtain for the plan the fullest trial, and in so far as our farms are concerned hitherto with every prospect of success; the plants from our first sowings of April being very healthy and thriving, and already coming into flower. The subsequent sowings were, however, delayed, owing to unfavourable weather; but now that the requisite rains have fallen, I expect to have nearly the whole farms sown by the end of the first week of June. In that case our harvest will be general early in September, which is usually a very favourable month for the purpose, while on the earlier sown fields it should commence in August; and, the season proving an average one, the first instalment of our crop will, I expect, be in England in February.

8. With reference to the concluding clause of the paragraph of the Court's despatch, I beg leave most respectfully to append copy of my still unanswered letter, under date 26th October 1847,* in which I find I have, in some measure, anticipated the wishes of the Honourable Court, in the hope of thereby meriting a continuance of the favourable opinion with which it has hitherto viewed my efforts to bring these experiments to a successful close, and which it has so warmly expressed on the present occasion, by adopting as its own the eulogistic language of the Manchester Commercial Association.

9. My object in again forwarding that letter does not, however, merely refer to myself; it also refers to my subordinates, Messrs. Sherman and Cuxton, both of whom are diligent, hard-working men, and most assiduous in their duties. Their united monthly salaries amount only to the aggregate sum of 250 rupees, the one having a series of farming establishments spread over fully 20 miles of country to visit weekly, while the other is daily in the gin-house from nine A. M. till three or half-past three P. M., and has in the course of the last 15 months, in obedience to the Court's instructions, purchased, ginned, baled, and dispatched no fewer than 647 bales of cotton, and has now in hand seed cotton enough for about 325 more, which is in course of being cleaned, partly by the gin, partly the churka, in accordance with instructions conveyed in the Court's despatch, No. 16, under date 14th July 1847. These are the services for which I solicit the kindly consideration of Government towards those parties, who are both educated gentlemen: the one the brother of a superintending surgeon in the service; the other the son of a late captain in the Company's service, and who was for three years educated in England, in anticipation of a promised cadetship. Strong as I esteem their claims to the favourable consideration, I should hardly have ventured again to urge them, had I not a few weeks ago received a note from Mr. Finnie, from which I extract the following sentence, written in reply to one of mine, in which I had hinted his want of zeal and assiduity in the cause in which he was employed: "I have done nothing, but I have tried; and my honourable masters the Court have sent out orders that I am to have 700 rupees per mensem, from the 16th October last, with five rupees per day when travelling. This is a sufficient mark that my efforts at least have met approbation."

10. I have no wish to disparage Mr. Finnie's efforts, nor to lower the value set upon them by the Honourable Court; but may, I trust, be permitted to express a hope that if his trials, which have resulted in his doing nothing, have been so liberally rewarded, that the not less zealous and much more profitable labours of my subordinates may not be altogether overlooked, but be esteemed deserving of at least a small share of similar indulgence. They have not complained to me on the subject of the favour accorded to him and withheld from them; but I know indirectly that they feel it, and give expression to the disheartening distinction that has been made between them; and, I think the following facts will show, not without reason on their side.

11. The management of the details of the agricultural department is more immediately under Mr. Sherman, and extends over three farms, subject, of course, to my general supervision during weekly visits.

12. I find, from a rough calculation, that the aggregate agricultural expenses paid through my office, including Mr. Sherman's salary and the cost of transmitting the produce to England (ginning excepted), has, during the last 32 months, amounted to nearly 29,200 rupees, or about 912 monthly; that the return for cotton produced, estimated (I have not been furnished with returns) at 6 d. the pound, and for seed, valued at 6 maunds for the rupee (native cotton seed has been selling at 4 maunds), amounts together to very nearly 20,070, or about 627 rupees monthly, leaving a deficit of only 285 rupees, notwithstanding the comparative failure of the crop of 1846-47, and the loss of full two-thirds of that of 1847-48, through the occurrence in succession of two unprecedentedly unfavourable seasons. The rain gauge of Coimbatore registered, for the whole of 1846 and three months of 1847, only 6½ inches of rain, while during the following nine months 26 inches fell; 20 of these during October, November and December, usually dry months in the tract of country in which the farms are located, and therefore selected for our principal picking season, whence this excessive destruction and loss. Under such circumstances, the crops of both years fell far short of previous

* See page 165 of this Return.

previous estimates, especially the last, which, previous to the setting of the rains about the 10th or 12th October, was, as a whole, the heaviest and most uniform I have ever seen.

13. Had these seasons proved average ones, there is every reason to believe our balance sheet would, in place of a deficit, have shown a considerable excess in favour of the farms. This, however, we are scarcely *à priori* justified in calculating upon, considering that we are restricted to the cultivation of a single plant, and are required to maintain a much larger establishment to execute our work during the short sowing season than would be required for the cultivation of the same extent of ground with several crops, uniformly distributed over the whole year.

14. These facts will, I trust, suffice to prove that the falling off of our crops during the last two seasons is not in any degree attributable to unskilful management on Mr. Sherman's part, and that throughout the establishment the utmost attention is paid to economy, consistent with efficiency. This essential object, economy of production, I expect still further to attain, now that a system of earlier sowing is being adopted; the longer seed time thereby obtained affording facilities for cultivating a larger surface, with the same amount of cattle power.

15. Between the 1st January 1847 and 1st April 1848 (15 months), Mr. Cuxton purchased seed cotton to the amount of 24,239 rupees, enough for 647 bales; that quantity he ginned, baled, and forwarded to England, thereby adding to the cost, as sold in Liverpool, 8,325 rupees, or 32,564 rupees for the whole batch.

16. The previous year we sent home 300 bales of native cotton, which realised 5 $\frac{3}{4}$ *d.*, and six bales of New Orleans (native grown), the first quality of which was sold for 6 $\frac{3}{4}$ *d.* Assuming that the same prices will be realised for that under consideration, we should have for 636 bales of native cotton 45,712 rupees, and for 11 bales of purchased new Orleans 928 rupees; total, 46,640; leaving a profit of 14,076 rupees = 43 per cent. Or, allowing for fluctuations in the market, a reduction of $\frac{3}{4}$ *d.* per pound, we should then have for the former 39,750 rupees, and the latter 825 rupees; total rupees, 40,575; still leaving a profit of 8,010 rupees = 24 $\frac{1}{2}$ per cent., and that, too, on a season remarkable for the high prices the article bore in the local markets, especially at the beginning of the season. In addition to these labours of the past year, he has in the course of the last two months purchased 9,868 rupees' worth of seed cotton, which, under his supervision, is in course of being cleaned, partly by churkas, partly by gins. Of the former, about 150 find daily employment, demanding much care and attention to prevent speculation. The quantity of cotton now in store should, according to estimate, yield 325 bales, worth, at 5 *d.* the pound, 20,312 rupees, leaving, after deducting cost and estimated charges, a profit of about 5,779 rupees = 39 $\frac{3}{4}$ per cent. It is, however, proper to remark here, that the surplus cannot yet be accurately estimated, as it must to some extent be influenced by the per-centage of cotton to seed, and the value of the seed, which I have calculated at 6 maunds to the rupee; but the price fluctuates.

17. Evidence enough has now, I apprehend, been adduced to show that both my assistants have laboured diligently in their respective occupations, not merely trying but executing the work assigned to them; the one having conducted the agricultural details appertaining to the culture of above 500 acres of ground, and the other those belonging to an extensive and remunerating commercial transaction.

18. This imperfect sketch will, I trust, go far to show that we are assiduously endeavouring to carry into effect every object for which this experiment was instituted; and to that I may add, such an amount of success has been achieved as justifies my assuming that a near approach to the establishment of fixed principles for the cultivation of the Mexican cotton plant in any part of India has been accomplished.

19. Mr. Finnie views the matter in a different light, and accompanies an official application for seed (true copy of which letter I append) by a note, in which he says, "as I did last year, I some time ago commenced planting a little cotton when I saw a shower coming up, and I am more and more convinced of the folly of trying to make this country produce American cotton."

20. In regard to this "folly," if such it be, I may be permitted to remark that it unavoidably involves another; but leaving that out of consideration, it should be borne in mind that he had no sooner planted his cotton last year than he went off to Courtallum and stayed away till March (and I believe intends doing the same this year), so that in truth he knew but little more of its after treatment than I did; and therefore is not, I conceive, justified in making the above assertion; which, if true, would indicate the needlessness of longer retaining his services, and if erroneous that, while contending with such a fixed prejudice, he is not the best person to test the matter by experiment. If the words "this country" are used as being applicable to India generally, I differ from him *toto cælo*; if he limits the expression to Madura and Tinnevely I must still dissent; partly from having seen good field-grown American cotton raised there both recently and by the late Mr. Hughes, partly from conviction that he has never given it a fair trial nor intends doing so. On these grounds I consider it a measure of doubtful propriety his being longer retained in his present station, he being, as he has repeatedly stated to me in correspondence, strongly prejudiced against that locality. Already in 32 months he has cost the experiment about 20,000 rupees, nearly the aggregate amount of the purely agricultural charges of my farms during the same period of time, and has not, I believe, grown one bale of cotton, or himself cultivated or taken continuous charge of a single field. What he has done in the ginning department towards aiding in making up the Court's order, I know not, but I believe very little.

21. I am most keenly alive to the invidiousness of the situation in which I feel called upon to place myself, in soliciting the attention of the Right honourable the Governor in Council to these facts, as my reasons for doing so may be so easily misrepresented, and that

II.
Madras.

attributed to unworthy motives, which flows purely and honestly from a deep sense of public duty, based on a conviction that no one knows, nor can know so well as I do, the past insufficiency of Mr. Finnie's efforts to fulfil his engagements; he is either deficient in capacity for the duty or has no heart in the work, or both are combined, and naturally, to use his own words, he "has done nothing." It is with extreme pain to myself I write these words, but still I feel, did I refrain from so doing, that I should fail in what I conceive to be a bounden duty; and would, as head of this department, deservedly forfeit the confidence hitherto reposed.

(signed) *Robert Wight*, Surgeon,
Superintendent Cotton Farms.

COPY of a LETTER from *T. J. Finnie*, Esq., to *R. Wight*, Esq.,
Superintendent, Cotton Farms, Coimbatore.

Sir,

I HAVE the honour to request you will be good enough to despatch to me two cart-loads of American cotton seed to plant on Government account, at your suggestion, and to distribute to the people who may be disposed to plant.

Camp, Aroopocotta,
17 May 1848.

(signed) *T. J. Finnie*,
Cotton Planter.

Revenue Department, No. 14 of 1849.

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

1. WE have the honour to transmit, in continuation of our letters in this department, of the dates noted in the margin,* copy of a letter from Mr. Finnie, the cotton planter in Tinnevely, dated 20th January 1849, replying to the queries relative to the cotton cultivation of India, conveyed in your despatch, dated 10th November 1847, No. 25.

2. From our resolutions† your Honourable Court will observe, that, in regard to the improvement of internal communications, which is adverted to by Mr. Finnie, we have called upon the Board of Revenue in the department of Public Works, to report what has been done in pursuance of our orders of the 14th July 1846, directing the disbursement of a lac of rupees from the surplus Devasthanum funds in deposit in Tinnevely, in constructing roads, &c., to connect the cotton districts with the port of Tutacorin.

3. We also transmit copies of letters from Dr. Wight and Mr. Finnie, dated respectively the 20th January and 12th February, replying to our requisition for a report, showing the results of their endeavours to introduce an improved description of cotton, and their proceedings generally with respect to this cultivation. These papers, with those already laid before your Honourable Court, complete the information available on the subject; and we solicit your attention to the details they communicate, particularly in the report of Dr. Wight, with regard to the climate and season which he states to be necessary for the successful cultivation of the plant.

4. Your Honourable Court will observe, that though some of the conclusions of his report are not very consistent, Mr. Finnie would appear to have little or no hope of the success of the American cotton in the part of the country where he is stationed; and that, though Dr. Wight seems to have established no broad principle, notwithstanding his experiments during the period he had been employed, he and Mr. Finnie are directly opposed to each other in opinion on all material points.

We have, &c.
(signed) *Hy. Pottinger*.
G. H. F. Berkeley.
D. Elliott.

Fort St. George, 7 March 1849.

* To the Hon. Court, 5 December 1848, No. 88; to the Hon. Court, 13 January 1849, No. 2; to the Hon. Court, 10 February 1849, No. 5.

† Diary to Cons., 6 March 1849.

From Surgeon *R. Wight*, Superintendent of Cotton Farms, Coimbatore, to Sir
H. C. Montgomery, Bart., Secretary to Government, Fort St. George.

Sir,

Coimbatore, 26 January 1849.

1. I HAVE the honour to acknowledge the receipt of Minutes of Consultation, No. 1342, under date 5th December 1848, calling on me (para. 16) to furnish a report, showing the result of my endeavours to introduce an improved description of cotton, and my proceedings generally with respect to this cultivation, brought up to the conclusion of the year.

2. The experiment for the introduction of American cotton into India was commenced under the tuition of American cotton planters, and for some time conducted on the plan they had been accustomed to follow, that of planting the land several successive seasons with the same plant.

3. In course of time it was ascertained that the system of agriculture was unsuitable to the comparatively impoverished lands of India, it appearing that each successive crop furnished progressively diminishing returns. Another defect of their agricultural system, as applied to India, has also since become obvious, but was much longer of being discovered from not being suspected. The Mississippi soils, being principally alluvial deposits, are naturally very rich, and, requiring no manure, get none, except the ashes of the plant, which in spring is annually burned on the ground, thereby restoring the greater part of the saline materials it had extracted from the soil. Little importance seems to have been attached to this proceeding in an agricultural point of view, and had it been equally practicable possibly it might not have been adopted. But it is not equally practicable in India, for a plant is not killed by frost as in America. The object, then, was to take as much as we could get off the plants, and then allow the people to clear the ground and carry away the stalks for firewood, preparatory to ploughing for a new crop, which was at once sown, the weather being favourable, often within a fortnight or three weeks after the first ploughing.

4. In India, as in America, manure is but little used in cotton agriculture, the people having, through long practice, ascertained that the want of it is to a great extent compensated by the fertilising effect of repeated ploughing for some months before committing the seed to the ground. They attribute this effect to "cooling" the land. For myself, I am disposed to attribute it to a different cause, namely, the chemical changes brought about among the constituents of the soils through their free exposure for a length of time to the action of light and air and ready admission of moisture.

5. This following operation, which subsequent experience has shown to be an important feature in Indian agriculture, was then, to a great extent, overlooked, or, at all events, its value not truly estimated. It is true that, though lost sight of as an essential part of our agricultural system, it was of necessity practised to a greater or less extent, as our lands were generally, weather permitting, in course of preparation for weeks or months before the sowing commenced; but that being accident rather than design, the bad consequence of departure from it, which was often obvious in the very inferior crops of imperfectly cultivated land, was not for a long time attributed to the right cause. Whether the fertilising effect may be most satisfactorily accounted for according to the native theory of cooling, or to mine of altered chemical composition, or partly to both, I certainly think that early culture exerts an important influence on the final result, and should never be lost sight of.

6. Perhaps I may indicate what I think will probably, by and by, be ascertained to be a third error, namely, the location of the experiment in Coimbatore. This, however, is as yet only problematical. That part of Coimbatore in which it originated, lying on what I presume may be called the extreme western boundary of the Carnatic, is yet cut off from the influence of the south-west monsoon by ranges of hills, which impede the passage of rain by attracting the clouds, but allow the free passage of the strong wind which then prevails. Owing to this circumstance we rarely have a fall of rain from May, when the sun passes our zenith, until October, when we receive the northern rains, which, at this distance from the east coast are usually scanty in amount and of short duration, and, so far from the sea, are followed by cold dry parching east winds, proverbially unfavourable to vegetation. In January and February these give place to warm, moist, westerly breezes, during which the native crop comes on rapidly, and is abundant or otherwise, in proportion to their early or late commencement. Here our agricultural proceedings failed us as compared with the native practice. Their lands were never scoured with two consecutive crops of cotton, and were ploughed with the May rains, while ours had to be done with the October ones, which not only threw us behind with our work, but lost us the best part of the rains, and forced us, as the natives term it, to sow "hot" ground. These defects we did not learn at the right time.

7. Such were the drawbacks under which the experiment was commenced, and I am now sorry to add pursued, for several years. The unavoidable want of success after the first two years, for the second was peculiarly favourable until January, when a very unusual storm ruined our prospects by destroying the bulk of the crop, led to a change of the system and locality.

II.
Madras.

8. At Oodoomalacottah, about 40 miles south of Coimbatore, lying immediately under another range of hills, the climate is generally drier, but the lands better, and there, during the first two crops, the returns were satisfactory, amounting to about 300 lbs. per acre; the third year there was a great falling off. The farm there was principally black cotton soil, which, so far as our experience extends, does not answer so well for American cotton as the light or rather sandy-brown loams to be met with all over the country, and common in the present location of our farms. From the former our crops have rarely, if ever, exceeded 300 lbs. per acre, even in the most favourable circumstances, whereas on the other we have repeatedly had as high as 500, and once 1,000 lbs. per acre. Mr. Wroughton on one occasion obtained from a field, nearly 20 acres in extent, upwards of 1,100 lbs. per acre, but that was, I think, accidental, attributable to the very favourable season, which kept it in bearing until the unusually late period of July.

9. I have this season got that field, which is now undergoing a course of careful fallowing, as a preparation for next year's crop, and then I shall consider myself well repaid with half the quantity.

10. The progressively diminishing returns in the immediate vicinity of Coimbatore, induced me in 1845 to remove the farms thence to new ground lying about 10 miles to the south-west, beyond the extremity of the range of mountains above alluded to, and open to the influence of the south-west monsoon. Here we usually have rain enough to admit of the ground being put under a course of preparation some months before the proper sowing season, and that particular season we commenced ploughing our first field in May. It was therefore in excellent condition when sown the end of July, and the soil being good, yielded a crop in proportion, nearly 1,000 lbs. per acre. Some other early ploughed and sown fields, but inferior as regards the quality of the soil, also yielded satisfactory crops, amounting in some instances to 500 lbs., while others again which could not be got ready before September, and were immediately sown, altogether failed. The failure was at the time attributed to want of rain, the dry weather having commenced about the time they were sown; but I now suspect want of early preparation. Heat of the soil had perhaps as much, or perhaps more to do with the disappointment; as I am now quite convinced, from much consideration of the past and recent observations, directed expressly to that question, that early culture exerts much influence on the subsequent crop.

11. The second season (1846-47) on the new ground proved an unfortunate one. The rains did not commence until June, and were of short duration. No time, however, was lost in making the most of them; but from July until February no rain fell, the country generally was burned up, even the irrigated crops failed for want of water. The total fall of rain registered during 15 months in Coimbatore, was only $6\frac{1}{2}$ inches. Under those circumstances, the crop unavoidably was a short one, amounting only to 79 bales.

12. The third season commenced more favourably, copious April rains enabled us to plough early, and commence sowing towards the end of June and early in July; one field, as an experiment, so early as the end of May. The crops generally were unusually fine up to about the middle of October. At that time the northern rains commenced and never ceased for three days together, until nearly the end of December. Much of the large crop was altogether lost, and of that harvested a great portion was much injured. Notwithstanding the very favourable prospects with which we commenced, the total outturn for the year only amounted to 105 bales, scarcely one-fourth of what we should have had, had the season been such as 1845-46.

13. The crop of the present year threatens to be a very short one, though the season has been, upon the whole, a favourable one, certainly not unfavourable.

14. In the course of last year I was strongly urged from home by persons acquainted with the plant in its native country, to try the plan of sowing with the early spring rains. The previous year I had done so on one field, and succeeded beyond my expectations, until the late rains set in. The proposal had been submitted to the Honourable Court of Directors, and so far approved of, that they forwarded it with a Minute, expressive of their approbation. Under these circumstances, I would not hesitate to give it the fullest trial. The result has not been such as my too sanguine expectations led me to anticipate; but it has notwithstanding, proved about the most instructive experiment we have yet made. The deductions from it have, it appears to me, led to a better understanding of the principles which must guide us in the cultivation of the American cotton plant in India than we have yet attained.

15. This experiment, which, at my request, was tried over a wide extent of country, has established the fact, that India is not, as alleged, too hot for the Mexican cotton plant, since it bore unharmed, in the Carnatic, the hot land-winds of May and June. Secondly, we have learned that the climate is not too dry, as also alleged, since it is found so tenacious of life that it not merely survived a four months uninterrupted drought, but on the occurrence of rain at the end of that time, grew vigorously, and produced a good crop. Hence, as such protracted droughts are rare, we have little to fear on that account.

16. Thirdly, it has afforded ground for suspicion that the cultivating season of India, so far from being too hot, is actually, if anything, too cold, as there seems strong reason for believing that the plant is more injured by a reduction of a few degrees of mean temperature

tive than by a considerable excess. As this, however, is a new suggestion, it seems necessary to state some of the grounds on which it rests, so that others may be enabled to judge whether I have allowed myself to be misled. The meteorological register kept on the Farms is unfortunately not so perfect as I could wish; I shall not therefore lay much stress on it, though I do not intend to set it altogether aside. But now that the subject is suggested, more care is being bestowed to ensure accuracy for the future. The idea first occurred to me from remarking the great difference between cold exposed and warm sheltered fields, and even between portions of the same field. Again, I observed, on the change of the monsoon, after a northerly rain had ceased, when the thermometer, suspended in the house, sunk daily to between 60° and 65°, that all our young plants, the produce of October sowing, ceased to grow, acquiring the appearance of diminutive stunted shrubs, though the soil was abundantly moist. That the change was caused by cold seemed established by the fact of those growing in low, warm exposures having attained their full size.

17. While reflecting on these adverse appearances, and in my own mind attributing them to cold, but unable, from want of a meteorological register of the cotton-growing states of America, to work out the problem, I received the "Gardener's Chronicle" of the 23d September last, containing the desiderated register. A short extract from that register, placed side by side with a similar extract from the Meteorological Register of Madras, will show that my surmises are not without foundation. In Mississippi the sowing commences in April. In the Carnatic, the latter half of September, or even the beginning of October, may be considered the best time. The three following lines of figures show the cotton season in three distinct localities, viz., 1. Vera Cruz, one of its native districts; 2d, Natchez, in Mississippi; and, 3d, the Carnatic:

	April.	May.	June.	July.	August.	Sept.	October.
V. C., N. Latitude 19° 12 -	77°18	80°42	81°86	81°50	82°40	80°06	78°44
Natchez, N. Latitude 31½ -	69°93	72°72	80°62	81°78	80°13	74°99	64°58
	October.	Nov.	Dec.	January.	Feb.	March.	April.
Madras, N. Latitude 13° 4	82°02	78°39	76°3	75°5	77°7	80°8	83°7

A glance at these three lines of figures will, I think, satisfy even the most prejudiced, that it is not excess of temperature we have to contend with in the introduction of the American cotton plant into India, but rather the want of it. In Natchez they sow with a comparatively low mean temperature (about 70°), which gradually rises from month to month until July, when it has reached nearly 82°. In the course of that month the plant has almost attained maturity; and when the pickings are approaching their maximum in August, it is still as high as we have it in March, our hottest and best picking season.

18. With us the case is different; we have to sow with a comparatively high temperature, which gradually diminishes as the plant advances to maturity, when it stands most in want of heat and light. It thus happens that the young plant is at the outset of life stimulated by strong light and high temperature, neither of which is sustained through the growing season; and in January and February, when the state of the crop calls for a high temperature, we have it about the lowest, nearly seven degrees below the mean temperature of Mississippi at the same stage of the crop. This is a state of things that must, to a greater or less extent, prove injurious to the health of a plant so tenacious of heat and light, though I am unable to say to what extent.

19. Sowing in May and June goes far to obviate this difficulty, but has to encounter a greater in the circumstance of being in full crop when the October rains set in. High temperature, when the incidental dryness of the air is moderated by an occasional shower, is not inimical to the health of the Mexican cotton plant, but dark and rainy weather during the harvest season is most injurious, nay destructive, to the crop. It is therefore incumbent on us always to bear in mind that the harvest is the most important season, and that it behoves us, if we would command success, so to manage the sowing and growing seasons as to bring on the harvest during dry clear weather. To accomplish this, we must recollect that the plant requires nearly four months to bring it into full bearing, and that the harvest is prolonged to between two or three months or longer, according to the season.

20. Keeping these facts in view, the culture of the American plant is greatly simplified. The first question to be determined is the course of the seasons in the place we are going to cultivate. We know that the plant must, in common with all others, have a spring or season of germination, a summer or growing season, an autumn or ripening season, and a winter or season of rest. In America these seasons of the plant correspond with the natural seasons of the year, but in this country they do not. The season of germination, or spring, requires but a moderate quantity of moisture; that of growth, or summer, calls for more

II.
Madras.

liberal supplies; while that of harvest, or autumn, little or none. That period of the season which represents the autumn in North America is equivalent to the spring, in cotton agriculture, in India, and so on; our cotton spring and summer, occurring during the rainy season, is abundantly humid, or indeed is too wet, with rather too little heat to compensate for the extra moisture. But, supposing the plant well grown, and its crop far advanced when the rains cease, it is my belief it will not, in its subsequent stages, suffer much from the cold, and the later portions of the crop will always be got well in.

21. It has been proposed, to avoid the drawback of having to encounter a diminishing, in place of increasing, range of temperature in the earlier stages, to sow in November and December, and the plan is in course of being tried in the Tanjore district; I think it probable it will succeed there under the influence of the humid sea-breezes and latter rains; here it has not been much tried, and the success has not been encouraging, owing to the dryness of the air and peculiarly parching east wind which prevails during the concluding months of the year.

22. In those portions of the Peninsula subject to the south-west monsoon I find the proper sowing season is July and August, that is, towards the conclusion of the south-west monsoon. By this arrangement we avoid the heavy rains of that monsoon, and partake of the lighter ones of the north-east. The cotton plant requires very little rain after it is once well above ground; it is therefore very desirable to avoid the heavy rains of the earlier monsoons, the subsequent lighter ones being quite sufficient: our earlier sowings this year had both; and though the aggregate fall was not more than desirable to realise a crop, yet we had too much. I mean by that, that the rains of the south-west monsoon brought the plant into full bearing just as the north-east set in, which last injured all the pods then ready to burst. To show that this is no mere speculative deduction, I may mention that a small field of Petil Gulph seed (about a quarter of an acre), sown in August, has already yielded 400 lbs. of seed-cotton, and that two fields of Mr. Wroughton's, sown the end of July and beginning of August, have yielded crops far superior to the generality of ours, not that they produce more, but because they received the northern rains when in a growing state, whereas ours got them when in full pick, causing the loss of probably more than half the crop then on the ground.

23. Assuming that the principles here explained are correct deductions from the facts stated, the principal applications may be summed up in few words. The following brief extract from a letter I recently addressed to Mr. Shubrick, of Ganjam, furnishes, I think, a comprehensive summary of them, as applicable to the Carnatic.

24. "Taking the Madras Meteorological Register as our standard, the principles for the cultivation of the American cotton plant in India may be thus briefly stated. View the month of September and first half of October as its Spring, or sowing season; November, December, and January as its Summer, or growing season; February, March and April as its Autumn, or harvest; and, lastly, from the beginning of May until September as its Winter, or season of rest, during which the land is to be well fallowed and prepared for the reception of seed on the return of its Spring in September."

25. To save the trouble of reference to the original, I append a copy of the register extracted from the almanack, contenting myself in this place with the monthly means of heat and rain from July until March, that being the period of active operations in the cultivation of a crop of cotton:

Months - - - -	July.	August.	Sept.	Oct.	Nov.	Dec.	January.	March.	April.
Thermometer - - - -	85·3	84·6	83·37	82·	78·30	73·3	75·5	77·7	80·8
Rain - - - -	3·73	4·76	4·	11·12	14·13	4·61	1·19	·04	·71

From this Table it will be seen that in the average run of seasons, there is sufficient rain for carrying on all agricultural operations continuously from the beginning of July until the end of December. The subsequent four months are nearly dry; cotton may be sown from the beginning of September until the middle of October; after that time it is less safe, as the rains are apt to be so abundant, that if the seed has not germinated, and is above ground when such heavy falls occur, it is liable to rot in the ground from excess of moisture. Towards the latter end of November an opportunity is usually offered of sowing again for a late crop; but my impression is, it will be found an uncertain one, for the ground being then saturated with water, and the plant finding nourishment near the surface, does not strike deep root, and will be apt, when the cold dry weather sets in, to be impeded in its growth through the conjoint operation of cold and want of moisture.

26. That part of this district occupied by our farms is under the influence of the south-west monsoon. Here the first rains fall in April and May, and the bulk of the monsoon in June and

and July, with occasional showers in August and September. In October the northern rains occur, but rarely exceed a few days' duration. November is usually a clear warm dry month. In December, cold dry parching winds set in, and continue with more or less intensity until February, when they give place to soft humid westerly breezes. It is during the prevalence of this last, that the native crops are harvested, and often we also then obtain a large portion of our crop.

27. Such being the course of our seasons, I consider July and early in August the best sowing season. The crops are then in the most favourable state for benefiting by the northerly rains, and almost immediately they are over, picking begins, and continues, with occasional intermissions, until the rains set in in April or May. I learn from a gentleman, some years resident in Cochin, that his acquaintance with the climate of that coast induces him to follow a similar course there. Mr. Shubrick writes me from Ganjam, "Our rains are nearly synchronous with those of Malabar, beginning about the first week in June, and terminating about the beginning of November."

It appears to me the land should be ploughed in May and June, and the seed sown in any convenient break in August, which would give it the benefit of the rains of September and October, allowing the first pods to open in November, the crop coming to perfection during the bright and tranquil weather closing that month, and prevailing throughout the ensuing ones of December, January, February and March.

28. Under the guidance of these principles to suit particular localities, it appears to me American cotton may be profitably cultivated throughout the Peninsula, excepting perhaps on the high table lands, where the climate is too cold. I state this exception, for I am now quite satisfied we have more reason to apprehend failure from diminution than from excess of heat. This is clearly shown by some of our late sown fields, the plants on all of which are exceedingly diminutive, and will, I fear, continue so, unless aided by a shower or two, followed by warm weather. Their appearance quite corresponds with Mr. Mercer's description of the Dharwar crops, confirming the impression I have for some time entertained, that that climate is unfavourable to the full development of the plant, simply from want of heat.

29. Considering the principles clearly established, and the practice simplified to the utmost that it can be, I am now exerting myself to give extension by the natives to the culture of the exotic through the formation of a number of small farms, each of from 20 to 50 acres, to be cultivated under the direction of our native maistries, by hired labour, in hope of familiarizing all classes of cultivators with it, and satisfying them that its cultivation by their own implements is just as cheap, easy, and certain as that of the native plant, while the produce is much more valuable: I moreover contemplate, after this year, diminishing the extent of our own farms, to allow of more leisure for superintending the smaller detached ones. For the present year I cannot alter our plans, as all our lands are already taken, and most of them have been once or oftener ploughed, thereby insuring for them very perfect cultivation, which doubtless they will amply repay.

30. Further, it is my intention to prepare a new circular, explanatory of the results obtained from the last, and distribute fresh supplies of seed, which, I trust, when sown by the natives along with their own seed, will tend to satisfy them, by the result, that it is the most profitable plant of the two to cultivate. In that way it has been widely introduced into Dharwar, though the climate, as indicated by the diminutive size of the plants, is an unfavourable one. Here I have been endeavouring to induce them to cultivate by the offer of high prices, and during two seasons apparently with considerable success, judging from the quantity offered for sale; but the extensive failure last season seems to have deterred most of those who had commenced from going on this one. The best kind of soil, too, is not yet well understood by them; but that will soon become known, and as being among the cheapest in the district; light and sandy, the assessment averaging about a rupee the cawney, gives still greater promise of this plant soon becoming a favourite.

31. I have appended three Meteorological Tables; 1st, that for Madras; 2d, that for Vera Cruz, one of the native districts of the Mexican cotton plants; and, lastly, one for eight of the cotton-growing states of North America.

Coimbatore, 26 January 1849.

(signed) Robt. Wight, Surgeon,
Superintdt. Cotton Farm.

In order to have a precise idea of the climate of the most favourable cotton districts, and for the advantage of comparing them with that of other countries into which it may be wished to introduce the American cotton, we select from Professor Dove's Tables, as published by the British Association, the following mean temperatures of places in Texas, Louisiana, Mississippi, and Alabama, as indicated by their initial letters—"The Gardener's Chronicle," 23 September 1848:

	Lat. N.	Long. W.	January.	February.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Mean of Year.
1. Galveston, T.	29° 18'	95° 1'	60·3	62·5	75·0	73·2	83·5	86·5	88·2	88·5	87·1	64·2	60·1	59·4	74·03
2. New Orleans, L.	29° 58'	90° 7'	56·75	58·39	66·58	72·41	77·26	81·18	82·23	82·12	79·42	69·71	58·71	52·26	69·80
3. Mobile, A.	30° 12'	87° 59'	56·40	57·37	65·64	70·00	76·36	82·17	82·41	82·04	78·94	69·97	61·50	55·50	69·92
4. Baton Rouge, L.	30° 26'	91° 18'	52·37	51·86	61·55	68·99	76·58	82·9	80·1	82·04	76·58	66·84	62·47	55·89	68·18
5. Jackson, L.	30° 51'	91° 1'	47·6	49·4	56·6	65·4	70·8	78·7	81·7	79·9	75·1	67·4	50·0	48·4	64·25
6. Houston, T.	31° 54'	95° 56'	65·2	60·5	68·7	72·7	85·5	80·1	84·2	81·4	83·5	72·3	62·3	60·0	73·03
7. Natchez, M.	31° 34'	91° 25'	50·13	50·89	62·2	69·93	72·72	80·62	81·78	80·13	74·99	64·58	55·23	49·09	66·10
8. Wicksburg, M.	32° 24'	91° 6'	51·40	53·72	63·99	74·01	76·84	80·65	82·48	80·11	76·40	64·92	55·26	50·91	67·56

To compare with these, we shall further adduce, from the same Tables, the mean temperature of places on the Atlantic Coast, as in Florida, Georgia, and Carolina, as well as in the interior of the two last:

	Lat. N.	Long. W.	January.	February.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Year.
9. St. Augustine, F.	29° 50'	81° 27'	60·73	64·97	67·55	70·06	76·89	81·41	81·81	82·67	80·15	73·83	63·55	60·92	72·13
10. Savannah, G.	32° 5'	81° 10'	52·15	53·74	61·19	67·36	73·14	77·89	82·23	82·09	75·96	66·92	57·20	50·50	66·70
11. Charleston, C.	32° 47'	79° 57'	49·61	52·80	58·34	63·20	75·19	78·85	80·70	80·15	74·3	66·7	58·6	51·8	65·91
12. Fort Johnston, C.	34° 0'	78° 5'	51·42	52·19	60·52	65·28	73·70	78·98	81·57	80·39	76·32	69·11	60·13	53·83	66·96
13. Columbia, C.	34° 0'	80° 58'	37·7	42·9	47·3	62·2	67·3	72·4	76·1	76·5	66·3	53·2	13·7	39·5	57·09
14. Augusta, G.	33° 28'	81° 54'	45·60	47·63	53·66	62·34	69·38	77·72	79·47	75·95	72·96	60·35	54·23	13·45	61·90
Vera Cruz	19° 12'	96° 9'	69·98	71·60	73·40	77·18	80·42	81·86	81·50	82·40	80·96	78·44	75·38	71·06	—
Madras	13° 4'	80° 14'E.	75·5	77·7	80·8	83·7	86·8	87·70	85·3	84·6	83·37	82·02	78·89	76·03	81·50

METEOROLOGICAL REGISTER for Madras, extracted from the Madras Almanack for 1848.

DATE.	January		February.		March.		April.		May.		June.	
	Ther.	Rain.	Ther.	Rain.	Ther.	Rain.	Ther.	Rain.	Ther.	Rain.	Ther.	Rain.
1 to 10 -	75.3	0.55	76.8	0.03	79.8	0.02	82.7	0.06	85.9	0.32	88.5	0.34
10 to 20 -	75.5	0.53	77.8	0.00	80.7	0.11	83.7	0.08	86.8	0.11	88.4	0.49
20 to 30 -	75.9	0.11	78.5	0.01	81.8	0.58	84.7	0.26	87.7	0.65	87.3	0.63
Mean -	75.5	1.19	77.7	.4	80.8	.71	83.7	.40	86.8	1.8	87.70	1.46
Maximum -	86.0	-	87.0	-	90.2	-	94.7	-	99.2	-	98.2	-
Minimum -	65.0	-	66.0	-	69.7	-	75.4	-	78.5	-	97.4	-

DATE.	July.		August.		September.		October.		November.		December.	
	Ther.	Rain.	Ther.	Rain.	Ther.	Rain.	Ther.	Rain.	Ther.	Rain.	Ther.	Rain.
1 to 10 -	86.2	1.00	84.6	1.77	84.5	1.40	83.1	2.65	79.7	4.49	77.3	2.23
10 to 20 -	85.1	1.21	84.6	1.51	83.4	1.25	82.0	2.43	78.8	5.09	76.1	1.80
20 to 30 -	84.8	1.52	84.6	1.48	83.2	1.65	81.1	6.04	78.2	4.55	75.7	0.58
Mean -	85.3	3.73	84.6	4.76	83.37	4.00	82.02	11.12	78.39	14.13	76.3	4.61
Maximum -	95.2	-	92.4	-	92.9	-	91.05	-	87.0	-	84.0	-
Minimum -	73.5	-	73.4	-	72.3	-	70.6	-	67.6	-	65.8	-

(True copies.)

(signed) *H. C. Montgomery*, Secy. to Government.

(No. 35.)

From *F. B. Elton*, Esq., Acting Collector, to *J. F. Thomas*, Esq., Chief Secretary to Government, Fort St. George.

Sir,

I HAVE the honour to forward, for submission to Government, a report from Mr. Finnie, cotton planter, received yesterday, furnished by him agreeably to para. 16 of the Extract from Minutes of Consultation, dated 5th December 1848, No. 1342.

Tinnevely, 12 February 1849.

(signed) *F. B. Elton*,
Acting Collector.

(No. 207.)

From *T. J. Finnie*, Esq., Cotton Planter, to *F. B. Elton*, Esq., Acting Collector, Tinnevely.

Sir,

IN compliance with the requisition of the Right honourable the Governor in Council, recorded in the 16th para. of the Minutes of Consultation, No. 1342, under date the 5th December 1848, I have the honour to submit the following report on the result of my proceedings, having for their object the improvement of the cotton of this country.

2. The course of procedure I have adopted is already known to Government, by the various communications which have been laid before it; and, without dwelling at length on the detail operations, I shall give the results. I may remark, however, that the plan I have pursued has had for its object the development of agriculture in all its varied relations to commerce, and the employment of capital with the greatest advantage to the parties concerned, from the ryot producer to the consumer, which is the grand aim and acme of industry; and whether we attain them by natural means or mechanic agency, matters little, if we ultimately arrive at the true solution of the problem in reference to the possibility of improving and extending the culture, and preparing the cotton of this country for the English market, whether by the introduction of new varieties, or the improvement of the indigenous produce, both of which have received due attention, with what present success the sequel will show.

3. The superior quality, the greater fecundity, and quicker growth of the "upland" cotton, which obtains the highest favour in America, renders its introduction into all countries capable of producing it an object of the first importance when it is considered in reference to its intrinsic value, and in connection with the wants of the rapidly increasing population of the whole world, to whom it is indispensable as an article of clothing, which nothing else can so well or so cheaply supply. With this view of the subject, I have exerted my best efforts with anxious solicitude to ensure its success in this country in the only effectual way, viz., by inducing the people to cultivate it. They, the ryots,* are cultivating it to a limited extent, partly at their own risk, and partly by the bounty which I, keeping in view the mercantile nature of the business, thought it right to afford them. But from the fact that the plant is much more luxuriant and prolific, and the produce finer, in the climate and in the soil of the southern portion of the United States than it was in the arid impoverished plains of Mexico, from whence it was brought, proves that a peculiar climate is required for its full and perfect development. That the climate of this part of the country does not so develop it, is manifest to the least experienced eye, when viewing it as it stands at present in its squalid misery, in juxtaposition with the flourishing plant that is peculiar to the country.

4. The prospect of the successful growth of the foreign variety is at present not encouraging. But I have lately observed a decided improvement in the appearance of the plants that are growing in a piece of very good land, which was formerly cultivated in paddy; but, for want of water, it is no longer so cultivated, and I have gathered some good cotton from this little field; there is, however, but little improvement in the plants growing in the poorer cotton soil; but the matter is in the hands of the ryots, and if they are satisfied to continue the culture, the plant will soon be cultivated extensively in the plains.

5. At Courtallum, a little valley that has the benefit, in some degree, of both the S.W. and N.E. monsoons, the success is far more satisfactory; but the cultivation is very limited, and attended to by a native, I being at a distance from the place. The result there is, a little good cotton at a large expense in proportion to the quantity. The people in the immediate neighbourhood are not likely to adopt the culture of the article to any extent; their lands being occupied with other things, no great benefit could result from it, even if every acre in that favoured spot was cultivated in cotton, and the plantation might be abolished; the expense, however, is not great, and I shall make it a mere dépôt for seed, and try to induce the people to sow the cotton among the palmyra trees to the south, where it thrives better than anywhere else in the plains, from the protection the trees afford the plant.

6. I may remark here that the cause of the failure of the American plant in the North Western Provinces may be attributed to the combined effects of alternate seasons of excessive humidity and extreme drought and severe cold. The occasional excessive wet weather, when insects devour the plants, followed by the withering blasts of hot air, peculiar to that part of the country, is very injurious to the plant. If the rain there was succeeded by mild warm weather, the plant would then grow well; but often the weather is very hot for a time during the day, and then commence the cold nights, with a bleak N.W. wind, which in a dry climate affects the health of the plant very materially. The same degree of cold in a humid climate would not injure it; but in that dry climate the leaves "burn," and the plants sicken, and become feeble, and the embryo fruit falls to the ground.

7. In this part of the country (Southern India), the cold nights that prevail, after a scanty monsoon, affect the plant as above described; but if we had occasional showers of rain from the 1st of February, when the weather becomes warm, and could avoid the ravages of insects, the American cotton would succeed here admirably; but in the absence of rain, I repeat, that I fear we cannot expect it to become the staple of this country. But the ryots will soon decide the matter, and I shall rejoice if the American cotton succeeds here equal to the wishes of the best friends of the enterprize, of whom I am chief, and the most interested perhaps of all, who ardently desire its success.

8. That the indigenous cotton of this country is capable of extension, and that better culture would ensure more ample returns to the cultivator, cannot be doubted, and this the people will gradually see as the business becomes more important, and greater system observed in its management. But I do not think that any degree of culture would materially improve the staple in this climate. That attention to the due separation of qualities would insure a large quantity of a most useful and valuable article, is reduced to a certainty, and I believe much more attention is now given to the quality than hitherto, from the fact that the agents at Tutacorin informed me that more good clean cotton had been received there during the season now closing than was ever known before, which affords me grounds to hope that my humble efforts to convince the people of the importance of cleaning their cotton properly, has not been without effect, and that a general improvement is likely to occur; but perseverance depends much on the encouragement the people receive, and the inducement offered to keep the qualities unmixed: if they make more by selling the qualities separate, than by selling them mixed, they will keep them separate, and much unadulterated cotton may be exported from this country.

* See the accompanying list of names of parties so engaged.

9. In reference to the mode of separating the seed from the fibre, I am satisfied that the churka is a much more efficient instrument than is generally supposed, and I do not believe that a better will soon be found for the simple, but, in native estimation, time-hallowed machine. The churka is well adapted to separate the seed from the cotton: the separation of the dirt and trash, and rotten locks, from the seed cotton, must be the object of care prior to the use of the machine; and for the separation of the remaining small particles, a subsequent process is required, which is merely the beating the fibre on cots, that allows the impurities to fall below it, and gives the cotton a lively and fine appearance, and makes it really clean and beautiful, as clean as the cotton generally in America. This is done by hand, and is tedious; but where there are so many people whose time is not valuable, the work is ultimately performed at a cheaper rate than machinery would accomplish it, when the cost of the instrument and all its appurtenances are considered. I write advisedly in making this remark; I have not taken up the position hastily, but after a careful analysis of the subject in all its bearings, and I am prepared to defend the conclusion at which I have arrived. But as results are what are now called for, I shall not enter on the subject further in this place.

10. In reference to the use of the American gin, I can give no hope of its ultimate adoption by the people, and no European merchant can ever carry on operations in seed cotton. It is well to continue the use of the machine until the European advocates for its use have become satisfied on the subject. I base my objections to the use of the gin solely on the expense attending its use, for, as a merchant, I must keep an eye on the profit and loss account.

11. While I cannot, after my best attention, give much hope of the success of the American cotton, and none at all of the American gin, in this part of the country, I can declare that I look with high hope to the indigenous cotton and the native churka, if duly encouraged, to accomplish for India that which neither the exotic plant nor the foreign machinery can ever, I fear, insure for her; viz., the extension and improvement of the cotton of her soil, and the consequent prosperity of her "poor ryots."

(signed) T. J. Finnie, Cotton Planter.

Aroopocottah, 20 January 1849.

LIST of RYOTS who are engaged in cultivating AMERICAN COTTON in 1848, in different parts of the Country.

Through Seva Soobramaneya Pillay, Head Man of Aroopocottah.

At Pooliempetty:

Sunkaralingum -	- $\frac{1}{2}$ chain of land.	Meenatchee Pillay -	- $\frac{1}{4}$ chain of land.
Permall Naiker -	- $\frac{1}{4}$ ditto.	Soobah Naiker -	- $1\frac{1}{2}$ ditto.
Chundruppa Naiker -	- $\frac{1}{4}$ ditto.	Veeralindren -	- $\frac{3}{4}$ ditto.
Mooka Naiker -	- $1\frac{1}{2}$ ditto.	Numbermall -	- $1\frac{1}{4}$ ditto.

Through Terupully Naiker, of Koomelungolum:

Runganmunar Naiker -	2 chains of land.	Gopallakistnama Naiker -	2 chains of land.
Venketroyaloo Naieker -	2 ditto.	Simmun Chitty -	1 ditto.
Venketa Naidoo -	- $\frac{1}{2}$ ditto.	Terupully Naiker -	8 ditto.
Varadoppa Naiker -	- $\frac{1}{2}$ ditto.		

At Aroopocotta:

Soobah Naiker -	- $\frac{1}{2}$ chain of land.	Mootoo Curpen -	- $\frac{1}{2}$ chain of land.
Periana Tavon -	- $\frac{1}{4}$ ditto.	Mootoo Naiker -	- $\frac{1}{4}$ ditto.
Annamalay Nadan -	- $\frac{1}{4}$ ditto.	Eroolandy -	- $\frac{1}{4}$ ditto.
Soonthararajicugar -	- $1\frac{1}{4}$ ditto.	Oothy Naiker -	- $\frac{1}{4}$ ditto.
Samynada Pillay -	- $\frac{1}{8}$ ditto.		

At Kunja Naikenputty:

Paupoo Naiker -	- $\frac{1}{4}$ chain of land.	Poochee Naiker -	- $\frac{3}{4}$ chain of land.
Naranuppa Naiker -	- $\frac{1}{4}$ ditto.		

At Setty Coorchee:

Putter Ramien -	- $\frac{1}{4}$ chain of land.	Pullava Naiker -	- $\frac{1}{2}$ chain of land.
Sunkerlingum Pillay -	- $\frac{1}{4}$ ditto.		

At Annianuckoo Nuttum:

Samy Naiker -	- - - - -	-	- $\frac{1}{2}$ chain of land.
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At Punthulgoody:

Alyavanun Moothaliar -	- - - - -	-	- 1 chain of land.
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At Settyputti :

Sethumbara Nadan - - - - - $\frac{1}{4}$ chain of land.

At Sethumbarapoorum :

Mootoorupa Nadan - - - - - $\frac{1}{4}$ chain of land.

At Semputti :

Oorcavala Mooppen - - - - - $\frac{1}{4}$ chain of land.

At Parattynuttum :

Terookana Tanen - - - - - $\frac{1}{2}$ chain of land.

At Poorungattanputty :

Aroonachellum - - - 1 chain of land. | Veeruppa Naiker - - - 2 chains of land.

At Sevacassee :

Pothee Naiker - - - $\frac{1}{2}$ chain of land. | Alugheny Naiker - - - $\frac{1}{2}$ chain of land.
Gopall Naiker - - - 1 ditto. | Seetharama Naiker - - - $\frac{1}{2}$ ditto.

At Verduputti :

Veeramoorthy Rowter - 1 chain of land. | Pethoo Naiker - - - $\frac{1}{2}$ chain of land.
Petha Chetty - - - 1 ditto. | Vytheyalingum Pillay - - - ditto.
Chockama Naiker - - - 1 ditto. | Chimrasawmy Thumberan - ditto.

At Kareputty :

Seethurama Naiker - - 1 chain of land. | Soly Mooppen - - - 1 chain of land.
(signed). T. J. F.

(No. 218.)

EXTRACT from the Minutes of Consultation, under date 1 March 1849.

Read the following letters :

From the Acting Collector of Tinnevelly.

[Here enter 20th January 1849, No. 16.]

From Surgeon R. Wight, Superintendent Cotton Farms, Coimbatore.

[Here enter 26th January 1849.]

From the Acting Collector of Tinnevelly.

[Here enter 12th February 1849, No. 35.]

Para. 1. THE Right honourable the Governor in Council observes, that the first of the above communications furnishes the replies of Mr. Finnie to the queries of the Honourable Court of Directors upon the cotton cultivations of India; this will therefore be forwarded to that authority in continuation of the proceedings already reported.*

2. In regard to the improvement of internal communications which is adverted to in paras. 12 to 16 of this letter, the Government fully concur in the necessity of immediately putting into passable condition the roads leading from the cotton-growing portions of the districts of Madura and Tinnevelly, to the port of Tutacore, and resolve to communicate the observations of Mr. Finnie to the Board of Revenue, in the department of Public Works, with a request that they will report what has been done in pursuance of the orders conveyed in Extract Minutes of Consultation, 14th July 1846, No. 733, to disburse a lac of rupees from the surplus Devestatum Funds in deposit in Tinnevelly, in "constructing roads, with the necessary bridges, choultries and wells, to connect the cotton districts with the part of Tutacoreen." The Board will call the particular attention of the Collector of the district and civil engineer of the division to para. 15 of Mr. Finnie's letter.

3. The remaining letters of Dr. Wight and Mr. Finnie are, in reply to the requisition of Government, contained in Extract Minutes of Consultation, 5th December 1848, No. 1342, for "a report showing the result of their endeavours to introduce an improved description of

* To the Hon. Court of Directors, 5 December 1848, No. 88; to the Hon. Court of Directors, 13 January 1849, No. 2; to the Hon. Court of Directors, 10 February 1849, No. 5.

of cotton, and their proceedings generally with respect to this cultivation, in order that the Honourable Court may have at one view before them all the information available." These reports will also be transmitted to the Honourable Court, and their attention solicited to the details communicated, particularly in the report of Dr. Wight, which relate to the climate and seasons, which he considers to be necessary for the successful cultivation of the plant.

(signed) *H. C. Montgomery,*
Secretary to Government.

Revenue Department, 18 July (No. 7) 1849.

Our Governor in Council at Fort St. George.

1. WE now reply to your letters of the dates noted in the margin,* which Cotton. report proceedings connected with experimental cotton cultivation.

2. We have attentively perused the Reports by Dr. Wight and Mr. Finnie, forwarded with your letter of the 7th March (No. 14) 1849, showing the results of their endeavours to introduce an improved description of cotton, and detailing their proceedings generally in respect to cotton cultivation. On the most important point, viz., the probability of the American cotton being successfully cultivated in the districts under your Presidency, these gentlemen have arrived at totally opposite conclusions. Dr. Wight is of opinion that, with due attention to the time of sowing and to that mode of culture which experience has shown to be necessary, "American cotton may be profitably cultivated throughout the Peninsula, except perhaps on the high table lands, where the climate is too cold." Mr. Finnie, on the other hand, states that he "cannot, after his best attention, give much hope of the success of the American cotton," and he therefore relies mainly on the improvement of the quality of the indigenous cotton. He thinks that better culture would ensure more ample returns to the cultivator, but that it would not have the effect of materially improving the staple. Para. 28.
Para. 11.
Para. 8.

3. We caused the samples of cotton forwarded to you by Dr. Wight and Mr. Finnie, and transmitted with your letter of the 20th July (No. 56) 1848, to be submitted to Mr. Aspinall Turner, the President of the Commercial Association of Manchester, and we transcribe in the margin† an extract of his letter to Dr. Royle on the subject. We presume that a portion of the 230 bales shipped to us by Mr. Finnie on the "Aurora" consists of cotton similar to this sample. We shall be able, on its arrival, to obtain more satisfactory evidence of its value in the English market.

4. In our despatch of the 4th July (No. 11) 1848,‡ we have stated our views with regard to the establishment of more experimental cotton farms. We need therefore only now notice that part of your letter of the 28th July (No. 56) 1848, in which you solicit our favourable consideration of Dr. Wight's application for an increase of the allowances of his two assistants, Messrs. Sherman and Cuxton, as well as of the salaries of the East Indian lads employed on the establishment. If you should continue of opinion that this request should be conceded, we desire that you will make application in the usual manner to the Government of India.

5. We

* Letter dated 28 March (No. 25) 1848; letter dated 28 July (No. 56) 1848; letter dated 19 September (No. 69) 1848; letter dated 5 December (No. 88) 1848; letter dated 13 January (No. 2) 1849; letter dated 10 February (No. 5) 1849; letter dated 7 March (No. 14) 1849; letter dated 9 March (No. 16) 1849; letter dated 13 March (No. 18) 1849; letter dated 28 March (No. 19) 1849.

† "I may say, generally, that the cottons sent by Mr. Finnie, grown from native seed, are very much the same as we have been in the habit of receiving for years past from Madras. You are aware that they have not entered largely into consumption in this country, and I can only repeat most emphatically what I have often asserted before, that it is a perfect delusion in Mr. Finnie or any one else supposing that such cottons will ever pass off to the spinners of Lancashire as a substitute for American cotton. They have nothing to recommend them except being of a clear bright colour; the staple is miserably short. The brokers' report (Corrie & Co) states that it has been destroyed in cleaning, but I doubt if it ever had much staple. The samples of American seed cotton are very different, and are valued by the brokers at 18 per cent. more than the others."

‡ See page 179 of this Return.

II.
Madras.

5. We forward, for your information, copy of the account sales of the cotton received per "Argyra."

6. We have to acknowledge the receipt of bills of lading for 871 bales of cotton shipped from Cochin to Liverpool on board the "Ganges," and for 230 bales shipped on the "Aurora" from Tuticoryn to London, freight for Liverpool not being attainable at that port.

We are, &c.

(signed) *A. Galloway,*
John Shepherd,
&c. &c.

London, 18 July 1849.

Revenue Department, 15 March (No. 8) 1848.

Our Governor in Council at Fort St. George.

Cotton.

WE transmit, for your information, copy of a letter dated the 1st instant, which has been addressed to us on behalf of the Manchester Commercial Association, relative to the results which have followed the measures adopted under our orders for encouraging the cultivation of a superior description of cotton in Coimbatore and the Southern Mahratta country, and suggesting certain measures, which in their opinion are calculated to promote the object in view, to which we desire you will give early attention.

We are, &c.

(signed) *H. St. G. Tucker,*
J. L. Lushington,
&c. &c.

London, 15 March 1848.

EXTRACT Revenue Letter from Fort St. George, dated 30th June (No. 32) 1849.

Para. 1. WE have now the honour to acknowledge the receipt of your letter in this department, dated 4th July 1848,* No. 11, and to submit, in reply, copies of the correspondence and of the papers recorded in the Consultation noted in the margin,† relating to the experimental cultivation of cotton under this Presidency.

2. We beg to call the especial attention of your Honourable Court to the Minutes recorded by our President and the members of Government on the subject, as well as to the orders founded on them, which will convey to your Honourable Court full and detailed information of all the arrangements made by us for discontinuing not only the experimental culture of cotton in both the Tinnevely and Coimbatore districts, which were superintended by Mr. Finnie and Dr. Wight, but also the mercantile operations into which the experiment latterly merged.

From Surgeon *R. Wight*, Superintendent Cotton Farms, Coimbatore, to Sir *H. C. Montgomery*, Bart., Secretary to Government, Fort St. George.

Sir,

ADVERTING to Minutes of Consultation, No. 621, under date 10th June, and No. 1305, dated 23th November 1848, and correspondence connected therewith, I have the honour to forward copies of correspondence which has subsequently passed between Mr. Finnie and myself on the subject of his operations at Aroopocotta. Judging from the general tenor of the accompanying letter, it would seem that the erection of the gin machinery for his use might almost be viewed as a useless expenditure, as he is doing so little business.

2. Influenced partly by the tone assumed in his letter of the 24th May last, in which he confidently speaks of having all the cotton of the district at his command, supported by the information conveyed in the subjoined paragraph from his letter of the 26th October, in which it is stated that, whether absent or present, his gips had been kept constantly running, I was in hopes that my misgivings of his capacity for carrying on the work he has pledged himself

* See page 179 of this Return.

† Dy. to Cons. 5 June 1849, No. 23,430; 3 July 1849.

himself to execute were misplaced, and that he was at length acting with the vigour and discretion requisite towards fulfilling his promises. Under that impression I recommended, I am now sorry to find prematurely, that the erection of the machinery be proceeded with.

3. It now appears, from the appended letter, that so far from having all or any part of the cotton of the district at his command at prices calculated to admit of its being considered a safe remittance, he can barely get enough to keep his gins running; and that, though there is plenty in the country at prices but little under what it fetches in England. At the price stated, viz., Rs. 7. 4. per poody, his cotton, including the charge for ginning, costs in Aroopocotta, simply as it comes from the gins, Rs. 38. 5. 2. per bale of 300 lbs. From that, however, must be deducted about 7 rupees, the average value of the seed obtained from that quantity of cotton, leaving the net cost Rs. 31. 5. 2., equal to $2\frac{1}{2}d.$ per pound.

4. It will be seen from appended copy of a report of the sales of our last season's crop, that generally our native cotton only realised $3\frac{1}{2}d.$ per lb., equal to nearly Rs. 40. 8. per bale. Then Rs. 40. 8. — 31. 5. 2., leaves Rs. 9. 2. 10. to pay the cost of transmission to market, including, in India, bagging, cart-hire from Aroopocotta to Tutacurin, baling, embarkation, freight; and in Europe, landing charges, dock dues, warehouse charges, insurance against fire, commission; altogether amounting to about 15 rupees, or between $1\frac{1}{2}d.$ and $1\frac{3}{4}d.$ per lb., the freight alone costing nearly 10 rupees a bale.

5. Taking his figures, viz. Rs. 7. 4. per poody (284 lbs.) of seed cotton; ginning, 3 rupees per 1,000 lbs., and allowing the high rate of 22 per cent. of cotton to seed ($21\frac{1}{2}$ is nearer the truth), we have the following results, which, reduced to a tabular form, stand thus:

$100 : 22 : 284 = 62.48$, call it $62\frac{1}{2}$ lbs. clean cotton. Then, $62.5 : 7.4 : 300 = 34.5.2.$
+ 4 ginning — 7 seed = 31. 5. 2.

Thus the prime cost in Aroopocotta, exclusive of all charges, is $2\frac{1}{2}d.$ the pound, that from Coimbatore delivered in Liverpool is about $3\frac{1}{2}d.$, which, as a remittance, is about as much as in the present state of the home market it will bear, and leading to the inference that Mr. Finnie is paying higher for his cotton than other exporters, merchants not being in the habit of pushing a losing trade.

6. The inference I draw from the statement now submitted is, that political economy has less to do with the matter than the want of tact on the part of Mr. Finnie, who seems very imperfectly acquainted with the knowledge and skill in business of the people with whom he has to deal, and seems moreover to be himself deficient in business habits of the kind required for conducting the duty.

7. The 4th para. of Mr. Finnie's letter is not quite clear to me, as I do not very well understand why he can procure seed cotton to clean by the churka cheaper than by the gin. As regards the quality of the staple, when cleaned by one or other of these processes, the question is now in the hands of the proper judges, namely, the Manchester spinners, whose award I will not venture to anticipate.

8. Regarding the concluding paras. of Mr. Finnie's letter, it is unnecessary to recapitulate what I have advanced in my reply. But as regards the matter of his knowledge in the working of gins, I am enabled, from the inspection of two which he had in use and returned to this establishment, after altering them according to his own ideas on the subject, to state that he is very imperfectly acquainted with the mechanism of that machine, as the working properties of both were greatly impaired by his alterations.

9. I am led to notice the circumstance in consequence of Mr. Finnie's having, much to our surprise, repeatedly taken Mr. Petrie and myself to task, in no mild terms, in both his official and semi-official correspondence, for the imperfections of the gins we sent him, when in truth their defects, as I have since discovered, were entirely his own making, in his attempts to improve on Mr. Petrie's work gins, which in our hands were easily worked by four men, and cleaned 1,000 lbs. of seed cotton daily, in his required six men, and could not by any possibility be made to clean half the quantity, and were moreover said to be full of minor faults. One which he condemned as being worse than the rest, was returned with all his alterations and improvements still standing, and at once explained the cause; since then I have had a second returned altered in the most singular manner, producing the effect of inverting the direction of the brush that removes the cotton from the teeth of the saws, thereby deranging its action, and with it the efficiency of the whole gin. Though thus deficient in mechanical attainments, he urged me to apply for his services in the room of Mr. Petrie, and expressed himself exceedingly displeased when I declined entertaining his offer on the ground that I believed I understood the working of a gin as well as himself.

10. These facts seem to strengthen the position with which I set out, viz., that the erection of the machinery for Mr. Finnie's use may be found an unnecessary expenditure, as implying that he can scarcely be looked upon as a person qualified to direct the working of complicated machinery, since he has so greatly failed in the more simple matter of working single gins.

(signed) Robert Wight, Surgeon,
Superintendent Cotton Farms.

Coimbatore, 21 December 1848.

II.
Madras.

COPY of a Letter from *T. J. Finnie, Esq.*, Cotton Planter, to Surgeon *R. Wight*, Superintendent Cotton Farm at Coimbatore, dated Aroopocotta, 6 November 1848.

IN compliance with the instructions contained in the Minutes of Consultation, under date 27th July, I have the honour to inform you that during the current cotton season, up to the 1st of November, I have ginned 36 candies of cotton, and during the last season about nine candies, making in the aggregate 45 candies.

2. It is not the custom of the ryots here to take the seed cotton to the purchaser, and they will not do it. I have had great difficulty in procuring seed cotton at all here, where there are so many churka houses established, and as it is the custom for the brokers to go to the ryots and purchase the seed cotton, a little from one and a little from another, I have been constrained to receive all that I have procured through the brokers or churka-house men, as it is less expensive than employing carts, and sending salaried agents to purchase it in that way. The price, too, is very high. I have had to pay from *Rs. 7. 2.* to *Rs. 7. 6.* per podhee of 284 lbs.

3. The geographical position of Tinnevely will account for the value of the article here above the value in the Coimbatore district, as represented in one of your letters. It is an axiom in political economy that the further a heavy article is removed from market, the less valuable it is where it is produced; and Coimbatore, being so far in the interior of the country, the people are glad to find a purchaser on the spot, where a market has been established at the Government gin-house, and they readily take the article to the purchaser. There is not the same competition in Coimbatore as in Tinnevely, which is filled with chittees, who purchase for the European agents, and there being here numbers of persons who have houses, and all the appurtenances for the work of separating the seed from the cotton, and whose sole business it is to attend to it, it is evident that they will not see the trade wrested from them without a mighty struggle. Therefore, however advantageous it may be to purchase seed cotton and gin it in Coimbatore, it is clear that equal advantages are not to be attained in Tinnevely.

4. I have also had a quantity, 58 candies, of cotton cleaned by the churka-house men up to the same date. The quality is the same as the ginned cotton, and is as clean, and I submit that it is better in staple after the cleaning process respectively than the ginned cotton, and may be obtained in quantity without expensive machinery, and without changing materially the modes already adopted by the people, care and attention in separating the good from the bad, and a little beating on cots to take out the small particles of trash that may be in it, is all that is required. The cost of the churka-cleaned article is much less than that cleaned by the gin.

5. I have also had much trouble with the coolies, who turn the wheels to give the gins motion. Hitherto they have work by the day, and it has been impossible to make them do as much work as the gins are capable of doing, and they would not work on the contract system, from the novelty of the business to them; and I have not hitherto been in a position to compel them to adopt my mode of working till the other day; when I exacted of them more work, they struck in a body, and I locked up the gin-house for some days. They have all come back, and are now working on the contract system at the rate of three (3) rupees for 1,000 pounds of seed cotton, including the thrasher work, by which I get much more work done. If I can procure the seed cotton, I shall be able, during the season, to give you 50 candies more of ginned cotton, but as the grain crop season is approaching, the churka women will be employed in gathering it; indeed during the rains the churkas cannot work, and I cannot promise much more of the latter article at present.

6. The supply of seed cotton keeps but little ahead of the gins, and as the rains seem to have set in, I fear the carts cannot move to supply me even with enough to keep the gins going till the weather clears up. There is plenty of seed cotton in the country, and after the rains are over we may be able to procure and gin a larger quantity than I have estimated with the gins I have. When the gin-house at Sevausey is finished, and the machinery and gins erected, we shall be able, of course, to extend operations.

7. I have the pleasure, for your gratification, to mention that I have induced many people to plant a little American cotton, some fields wholly with it. Some seeds have been sown with grain, and some scattered among the native cotton, with the hope that stamina of the American cotton may mingle their pollen with that of the native plant, and gradually produce a hardier plant than the one, and more productive variety and finer staple than the other now has.

8. I shall be glad to have the benefit of your suggestions on any of the points contained in this letter, and I particularly solicit information regarding the working of the gins, the quantity each will clean regularly in a day, and the manner of working them. Our gins are properly fixed in their places, as are the wheels. The gins are level, and their wheels are in a straight line with the pulleys, so that the bands, being kept in good condition, run smooth, and in every respect on correct mechanical principles, and yet we do not turn out as much work per diem as I hear you do per gin. The most we have ever done with three gins was (1,760) one thousand seven hundred and sixty lbs. seed cotton. I am most anxious to do all I can to make the gin successful, and to economise in fulfilling the Honourable Court's orders, and any suggestions you may be pleased to give me will be thankfully received, and duly compared

compared with the mode I have adopted here, and if I am in error on any point, I shall be happy to have it pointed out to me, and I will have it corrected.

I have, &c.
(signed) *T. J. Finnie*, Cotton Planter.

P.S.—When about to despatch the above, your letter of the 2d instant arrived. I believe all that requires a reply is answered in the 2d paragraph.

7 November 1848.

(signed) *T. J. F.*

COPY of a Letter from Surgeon *R. Wight*, Superintendent Cotton Farms at Coimbatore, to *T. J. Finnie*, Esq., Cotton Planter, dated 15 November 1848.

I HAVE the honour to acknowledge the receipt of your letter of the 6th instant. In your letter to Government, dated 24th May last, it is stated, but no data furnished by which to estimate the correctness of the statement, that you considered cotton such as the sample sent, a perfectly safe remittance. I find by calculation that the cotton you are now ginning reduced to the average rate of *Rs. 7. 4.*, and loaded with our, perhaps rather high charges, will cost in Liverpool about $3\frac{3}{4}$ *d.* per pound. This in the present state of the home market can scarcely be viewed as a safe remittance, American, which usually realises *1 d.* per pound higher, now selling at from *4 d.* to *4½ d.*; but as ginned Indian cotton usually fetches higher prices than churkaed, it will perhaps prove a remittance at par exchange calculated at the average rate of 7 rupees per poody, (allowing 1,400 lbs. of seed cotton per bale) and loaded with our charges (see marginal table)* of 18 rupees per bale for bringing to market; its prime cost is $3\frac{3}{4}$ *d.* per pound, but probably our charges are considerably in excess of yours. In Coimbatore seed cotton may be said to average 5 rupees the candy (500 lbs.), and in spite of our inland station and high charges can be delivered in Liverpool ginned for $3\frac{1}{2}$ *d.*; this I consider a safe remittance. Your political economy, therefore, in this instance seems a little at fault, as the reduction of local cost is usually found barely to compensate for higher charges in conveying goods to distant markets.

2. The marginal table * will show the exact cost and charges per bale from the gin-house to Liverpool just incurred, the raw material averaging 10 rupees the candy of 500 lbs. I should like to have from you similar statement, especially with reference to charges. The item cart hire as put down here is above the average cartage, owing to the competition of the tobacco contractors at this season of the year.

3. With reference to the question mooted in the fourth paragraph of your letter, viz., the purchase of churkaed cotton, I can offer no opinion. The purchase in the bazaar of the marketable article is, as I understand, forbid by the provisions of the charter, so that to engage in such a transaction would require the special sanction of Government.

4. The cost here of ginning by manual labour is 8 pies per maund of 25 lbs., or *Rs. 1. 10. 8.* per 1,000 lbs. I felt some surprise, and I believe I may add, disappointment, in reading the 5th and 6th paragraphs of your letter, as I was led to believe from the whole tenour and confident strain of your letter of the 24th May, that for the future you should have no difficulty in obtaining any quantity of cotton you might require, your eloquent ridicule having at length proved an overmatch for native chicanery. This glowing picture it now appears was a little over-coloured.

5. With the information conveyed in the 7th para. I cannot say I am much gratified; the object of your being sent to Tinnevely, as I understood, was not for the very secondary purpose of employing you to act as an agent to induce people to grow a little American cotton (a less costly agent than an American cotton planter might have been found qualified for that work), but for you as a professional agriculturist and cotton planter to go hand and hand with them, encouraging and showing them how to conduct the culture of the new plant, and in that way to ascertain by comparative results to what extent your teaching was likely to prove serviceable to them.

6. For

	<i>Rs.</i>	<i>a.</i>	<i>p.</i>
* 1,400 lbs. of seed cotton, at 10 rupees per candy of 500 lbs.	28	—	—
Ginning	3	—	—
Baling and pressing	1	8	—
Cart-hire	2	5	4
Full screwing and shipping	1	8	—
Freight	9	12	—
	46	1	4
Deduct value of cotton seed	7	—	—
	<i>Rs. 39</i>	<i>1</i>	<i>4</i>

II.
Madras.

6. For this purpose a farm of from 40 to 50* acres, the whole of which might have been cultivated at from 12 to 15 rupees an acre, would have answered better than one of 500 acres, as by satisfying your neighbours that you had no wish to aggrandize, but simply to enter into friendly competition with them, in a conflict, not of rivalry, but skill, you would have stimulated emulation and obtained their confidence.

7. The opinion I have so often expressed to you, directly and indirectly, I still retain, and consider that so long as you stand aloof as a mere looker on, you do not fulfil the obligations you have come under to the Madras Government in engaging to serve it as an American cotton planter.

8. In regard to the hope expressed, that by sowing the two species of cotton together, you may succeed in obtaining a cross between them hardier than the one and more productive than the other, I can give you no encouragement to expect such an event from the means used to accomplish it, as being at variance with the laws of nature.† But supposing it to happen, and such a cross obtained, I do not suppose we shall be great gainers. The native plant might possibly be improved upon, but the American deteriorated as regards produce; and as regards hardiness, I am quite satisfied from most ample evidence that the one is to the full as hardy as the other. An example now daily before my eyes, I shall adduce for your information.

9. Two plots within six feet of each other were on the same day sown with native and American cotton seed in May last. Both germinated equally well; both have since sustained four months' uninterrupted continuance of drought and very windy weather, during the prevalence of which both dropped nearly every leaf, and appeared entirely lost. But since the October rains set in both have revived and are now in full growth, the only difference between them being that the American seems nearly a fortnight in advance, being already covered with flowers and young pods, while its more tardy brother is only beginning to come into flower.

10. For myself I feel satisfied from much observation and study of the constitution and habits of the Mexican cotton plant, neither of which, by the way, you have ever studied, that the locality you now occupy is much more favourable than the vicinity of Coimbatore, and I even suspect than that occupied by our present farms, for the culture of Mexican cotton. And I think, moreover, that had the ground been differently occupied during the last three years the result would probably have proved more satisfactory than we have had here. But on this matter I am aware it is useless to dwell; you have long ago compromised yourself by declaring that you are convinced that it is "folly" to try to make American cotton grow in either Madura or Tinnivelly, and now you won't try, because success would ruin, even in your own esteem, the reputation, as a practical planter, you imagine yourself to possess. But while you thus declare it folly and waste of public money for you to undertake the labour and impose on yourself the restraint of making the trial, you feel no compunction in urging poor natives to risk their little capital and labour on what you confidently pronounce a hopeless undertaking, you all the while placidly look on doing nothing for fear of uselessly spending a few rupees of the public money. In so acting, I repeat, it is my conviction you neither meet the wishes of Government nor fulfil your own engagements as its servant.

11. Adverting to the last paragraph of your letter regarding the working of your gins, the information conveyed is scarcely sufficiently detailed to enable me to form an opinion. Our 25 saw-gins, worked by two sets of coolies (eight each set), clean, in from 10 to 12 hours, 1,000 lbs. of seed cotton, and two 19 saw-gins, worked by sets of six coolies, 750 in about the same time; with these data for comparison, you will be able to ascertain whether your gins do their work there as well as they did before leaving this. If they do not fall materially short of that standard the difference probably depends on the deficient training of the coolies; but if considerably so, I apprehend there must be something wrong with the gins.

12. This last I think likely enough to be the case, as I found, on carefully examining the effect (on the working) of some of the alterations you had made on the two returned gins, viz., the condemned one, and the small American one just received, that you had actually spoiled both, furnishing irrefragable proof, if you can possibly excuse the boldness of the expression, that you do not understand the mechanism of a cotton gin. It is probable you will attribute this assertion to arrogance or a "domineering principle," and scoff at it as ridiculous or impertinent, but it is nevertheless true, as I could easily satisfy you, were you here. Such being my impression, I would suggest for your consideration, in the event of your gins not sufficiently doing their work, the propriety of your permitting me to send down our artificer, who superintends the building of them, to ascertain whether or not they

are

* $50 \times 15 = 750$ rupees per crop, a sum not likely to ruin the Company, even supposing the whole lost by the utter failure of the crop, a very unlikely contingency.

† Note not in the original.—[To obtain such a cross it is requisite to open the flower before natural blooming, cut out the stamen before shedding their pollen, and apply the pollen of the intended male parent to the virgin stigma. If its own pollen has once been applied, the other will not take effect.]

are all right, and thereby enable you to determine whether the fault lies in the gins or coolies.

I have, &c.

(signed) *R. Wight*, Surgeon,
Superintendent Cotton Farms.

EXTRACT of a Letter from *T. J. Finnie*, Esq., Cotton Planter, to Surgeon *R. Wight*, Superintendent Cotton Farms at Coimbatore, dated Acoopocotta, 26th October 1848.

Para. 3. I may remark, that since we have been able to procure cotton the gins have been kept constantly running both during my voluntary absence, and while I was ill, under the superintendence of my office establishment. I have also had a quantity of cotton of the same quality as that which we ginned, cleaned by the churka, under my own superintendence, which consequently cannot be strictly termed "bazar-cleaned cotton." I have not the means myself of cleaning cotton with the churka. I have no houses in which to carry on the work, consequently I was compelled to resort to the means I have, or not get any at all cleaned in that way. I hope you will approve of the course I have pursued.

(signed) *T. J. Finnie*, Cotton Planter.

COPY of a Letter from *H. Fleming*, Esq., Secretary to the Manchester Commercial Association, to *Robert Wight*, Esq., M.D., dated 5th October 1848.

HAVING been informed by Mr. James Lees, a director of this Association, that you were particularly anxious to ascertain the relative value of the various marks of native and New Orleans seed cotton shipped by you on the "Argyra," from Cochin, and having just completed the sale of that cargo for account the Honourable East India Company, it affords me much pleasure to supply you with the required information, and on an early day I hope further to furnish you with a report as to the working qualities of the several parcels, as tested by the spinners. I give the marks in the order in which I find them in your letter of 15th March 1848, to the local Government, a copy of which was sent to me from the India House.

List of Prices obtained for 483 Bales of Cotton, ex "Argyra," from Cochin, and sold for account the Honourable East India Company at Manchester, by Hugh Fleming.

1848 : Aug. 8,		NO	1 bale -	4
"		NO F	13 "	4
Sept. 8,		N + O F	1 "	4 1/2

This was universally considered the best cotton ever imported from India. It possessed all the characteristics of New Orleans cotton, and would at all times compete with the fair quality of that staple in this market.

1848 : Sept. 5,		N + O F	1 bale -	4 1/2
"		N + O F M	19 "	3 1/2
" 26,		N O P	14 "	3 1/2
"		N O M P	1 "	3 1/2
"		O O F	3 "	3 1/2
"		O O	350 "	3 1/2
"		O O M	49 "	3 1/2
" 5,		C O O T	9 "	4
⊕ " 25,		N O F	3 "	3 1/2
Aug. ⊕ 16,		N + O F	15 "	3
" ⊕ " 1,		N O P	2 "	2 1/2

Marked thus ⊕ have been selected from the lots to which they belonged as being in very bad condition, and have therefore sold at lower prices.

There is no concealing the fact that the indigenous cotton of India will never go down here; all our hopes rest on the New Orleans seed.

By direction of the Board I have forwarded to your address copies of each of our local papers, in which you will find copious reports of the proceedings at a public meeting, held at the Town Hall here, on the 28th instant, for the purpose of exhibiting the working of the "Cottage Gins," the construction of which, I believe you are aware, has for a considerable time occupied the attention of the association; complete success has been arrived at. Dr. Royle was present on behalf of the East India Company, and was much pleased with the

II.
Madras.

II.
Madras.

result of the experiments, the iron machines cleaning 4 lbs. of seed cotton in 12 minutes, or 20 lbs. per hour. We do not, however, expect that the outturn will be quite so large when the gin is driven by the Hindoos, but you will shortly have an opportunity of making the trial, as it is the intention of our President to send out two of the machines to your address, with as little delay as possible, well knowing that in your hands every justice will be done to them. We have sent one to London for the inspection of the East India Company, and are not without a hope that they may be induced to forward a number of them to each of the cotton districts of India.

Yours, &c.
(signed) *Hugh Fleming*, Secretary.

From Surgeon *R. Wight*, Superintendent Cotton Farms, Coimbatore, to Sir *H. C. Montgomery*, Bart., Officiating Chief Secretary, Fort St. George.

Sir, Coimbatore, 31 January 1849.

ADVERTING to correspondence forwarded with my letter dated 21st December 1848, I have the honour herewith to transmit Mr. Finnie's reply to my letter of the 15th November. In my reply which accompanies, I have mentioned my intention of laying it before Government, as his reply to my impugnings, but without comment. This I now do.

I have, &c.
(signed) *Robert Wight*, Surgeon,
Superintendent Cotton Farms.

From *T. J. Finnie*, Esq., Cotton Planter, Tinnevely, to Surgeon *R. Wight*, Superintendent Cotton Farms, Coimbatore.

Sir, 18 December 1848.

I HAVE the honour to acknowledge the receipt of your letter of the 14th ultimo, in reply to mine of the 6th ultimo, which certainly contained nothing to justify your very illiberal and ungenerous remarks, which are as unjust as they are uncalled for.

2. I claim the right of thinking and acting for myself, in the management of the business which our honourable masters, whom we serve in common, have entrusted to me, and you have estimated me very erroneously if you suppose that the style you have thought proper to adopt can influence me in the management of the business I have undertaken, and which I profess to understand.

3. I shall not enter with you upon the useless and endless discussion regarding the suitability of this part of the country for the culture of American cotton, or the applicability of the saw-gin to Indian cotton. A few facts, however, may not be out of place, and then I am content to let time prove who is right. I am willing that you should enjoy your own views, and adopt what course of procedure you choose, and I only claim for myself that charity which I so readily concede to you. I proceed to reply to your letter, merely to explain that which you seem to have misunderstood, and to correct the erroneous views you seem to entertain in regard to my motives in the course of procedure I have adopted, and in the discharge of my duty to my employers, and I hope that our official correspondence may henceforth be conducted in that cordial courteous manner, so essential to a right understanding between parties engaged in the discharge of a public duty.

4. In your first para. you seem strangely to apply my remarks, in my letter to Government of the 24th of May, to the ginning operations, when it is distinctly stated that I referred to the "cotton cleaned by the people, (whose business it is) by the charka alone," and to prove that I was not far from the mark in assuring Government that fine well-cleaned churka cotton was a safe remittance at (55) fifty-five rupees per candy of 500 lbs. I need only say, that since then the European agents have purchased the common cotton of the country in large quantities at (53) fifty-three rupees, and would have gone as high as (56) fifty-six rupees, the present rate of exchange justifying the extraordinary price. You have taken the price which I informed you I had to pay here for seed cotton, and you make your calculations, and apply them to my remarks in my letter of the 24th May, which did not refer to seed cotton in the least, but to cotton cleaned by the people, under my directions and superintendence, to see that it was kept free from dirt and trash, the management of the seed cotton remaining in their hands, and the cleaned article delivered to me in beautiful condition, for (55) fifty-five rupees per candy, as I have said, which is only 2½d. per lb. here, and the business unlimited; then add the transit, pressing, and shipping charges, which I cannot now give, and you have the net cost delivered in the English market. The ginned cotton, which is no cleaner, and the staple not so good, costs here Rs. 58. 9. 6. per candy, the lowest rate to which I have been able to reduce it, which is as near as possible 2½d. per lb., exclusive of cost of machinery, management, contingent charges, wear and tear, &c., after all the trouble in a very limited business. At the present rate of exchange I think it likely that even ginned cotton may be a safe remittance, but surely we do not try experiments to prove what may be done in an extraordinary state of the market; I wish to prove how cheaply good cotton can be sent to England regularly, and not at how high a price it may be sent occasionally; you talk of "par exchange," as if the exchange was against Indian

Indian produce sent to England, the fact is, it is most favourable, for we receive in India two shillings for every one shilling and ninepence paid in England.

5. When I have made a shipment, I shall be able to give you detailed information regarding the cost of ginned and churka-cleaned cotton respectively. Till then I cannot obtain the actual charges.

6. If my political economy be at fault, my common sense is not; my remarks in the third para. of my letter of the 6th ultimo referred to the trade as necessarily conducted by the people between Coimbatore and Madras, a distance of 309 miles, and not to your transactions, for with your facilities you can send your cotton to Ponany, a distance of 60 miles, and induce a ship to call for it; the poor natives cannot do so. I want no better support for my argument than that afforded by you. You say, "in Coimbatore seed cotton may be said to average (5) five rupees per candy of 500 lbs.," while here we have to give (7. 6. 0.) seven rupees and six annas for 284 lbs.; but in your next para, and in your tabular statement, you say the "raw material, averaging (10) ten rupees per candy for 500 lbs." How can you reconcile these two statements? You tell us how much a bale costs, but do not tell us whether the bale weighs 100 or 500 lbs.

7. The remark in your third para. regarding the prohibition by the charter to purchase bazaar cotton, shows that you have somewhat changed your views since your letter of the 28th July, 1846, when you recommended Government to purchase some of the best bazaar churka-cleaned cotton, as ordinarily conducted by the people; but now you oppose my plan of proceeding in having it properly cleaned by the churka, under strict regulations, to prevent the mixture of bad and good qualities!!

8. As I informed you in my letter of the 6th ultimo, the cost of ginning cotton here, including the working of the thrasher, is (3) three rupees per 1,000 lbs. of seed cotton; your thrasher is moved by cattle machinery, and I suppose does not enter into your estimate of costs of separating the seed.

9. You say you were surprised and disappointed in reading the 5th and 6th paras. of my letter of the 6th ultimo, which refers to the difficulty of procuring seed cotton here. You had been led to believe, from the whole tenor and confident strain of my letter to Government of the 24th May, that for the future I should have no difficulty in obtaining any quantity of cotton I might require. How strangely you construe the plainest and most common sense expressions. It is evident that I referred to cotton cleaned by the "churka alone," as distinctly stated by the people themselves. I had nothing to do with the purchase of the seed cotton. I have always opposed transactions in seed cotton, from my conviction that merchants can never engage in such a business, and therefore what Government does in that way proves nothing, but that the plan is impracticable. In Tinnevely, where there are a great many people whose sole business it is to separate the seed from the cotton, people whose property consist in houses for the purpose, whose time, from long habit, can only be profitably employed in that business, and the article being in their own hands, it is very evident that they will not see their occupation wrested from them without some equivalent, and they will not give us the seed cotton unless they realise as much by the transaction as they would make by separating the seed themselves, and then selling both seed and cotton. We must ever pay as much for the seed cotton as we would have to give for both separate; add to this the expense of machinery, wear and tear, houses, superintendence, &c., &c., and you have the cost at which we can gin cotton, which makes it far above its ordinary value at this day. Here where the people are traders and cotton cleaners, as I have said, we have to pay (Rs. 7. 6.) seven rupees six annas for 284 lbs. of seed cotton, which gives the tabular statement in the margin.*

10. We must therefore leave the details of managing the seed cotton to the people whose business it is, under wise regulation and substantial encouragement, to induce care and attention in cleanliness, the well cleaned article to be delivered at a fixed rate; this is the plan I have found best adapted to this country; by this means we procure a better article, in large

* Cost of 2,300 lbs. seed cotton, equal 1 candy of 500 lbs. ginned cotton :

	Rs.	a.	p.
Ginning - - - - -	6	14	4
Baling into bundles - - - - -	-	9	-
Cloth and twine - - - - -	1	8	-
	68	11	-
Deduct for seed, which by the way is a drug here, and remains on hand, say C.R. 1. 4. per podhee, the present price - - - - -	9	14	2
Net cost per candy of ginned cotton in the district, exclusive of machinery, house, wear and tear, and other contingent charges - - - - -	Rs. 58	12	10

Note.—The price of cotton seed varies, which accounts for the slight difference in the statement in the body of the letter and the marginal table.

II.
Madras.

large quantities, at less cost than when we purchase the seed cotton and have it ginned; and without materially interfering with the established habits of the people, and without expensive machinery, even with the great advantages you enjoy in regard to low prices and proximity to the shipping port, which, mind, is not open to the people, let me ask, if you add the charges of your establishment, and all expenses that must come into the merchant's account, if you can then deliver ginned cotton at Liverpool at a profit in an ordinary state of the market and exchange.

11. In regard to the object of my being sent to Tinnevely, and your remark "that a less costly agent than an American cotton planter might be found qualified for the work," I consider it a matter on which you have no right to animadvert.

12. You give a rough schedule of the cost of such a plantation as you think ought to be established and cultivated on the "neeze" (hired labour) system, which in this country ever has, and ever must fail, while the "ryotwaree" is the only plan that can succeed, and that plan I have adopted, as I shall presently show; but allow me to refer you to the Minutes of Consultation, of the 16th December 1845, positively forbidding the establishment of a cotton farm. In deference to your views, and contrary to my own judgment, I recommended the establishment of a cotton plantation in May last, but it was not sanctioned by Government. How then can you say that I "stand aloof, a mere looker on"? And how can you gravely assert that I do not fulfil the obligations "I have come under to the Madras Government in engaging to serve it as an American cotton planter?"

13. The hope I expressed of gradually mixing the native and American cotton, in order to obtain, if possible, a "hardier plant than the one and more productive variety than the other," which you so strenuously oppose, involves no very serious ground for dispute. In all points where botany is concerned, I yield with all possible deference to your superior knowledge on that subject.

14. I hope the two kinds of cotton planted in two plots of ground will afford you satisfaction in the result, and enable you to prove the superiority of the American cotton; but the prevalence of repeated drought of four months' continuance is much against the success of the plant, for in that time it ought to be in full bearing, and if it has lost all that time, and has to commence its work over again, it is clear it has lost much. You have sown the native cotton out of season, as its failure proves; it is no further advanced now than it would have been if sown at the commencement of the north-east monsoon. I have an acre of American cotton which was sown in June in black land; it produced a little cotton before the north-east monsoon commenced, but since then it has done nothing and looks miserable. Some that was sown in red land at the same time did not come up well, and the few trees that come up soon died for want of rain.

15. I have cotton planted in every possible way, and it all looks wretched, except indeed some that is sown in red land among palmyra trees, which still looks well; and the plants that are near the hedge and protected by it look the best. I merely state these as facts that are under my own eye. I base nothing on them for or against the success of the plant in this country; both the red and black land of this country, especially if well-manured, would produce cotton in the climate of Mississippi.

16. In your 9th para. you say that I have never studied the constitution and habits of the Mexican cotton plant. I pretend not to have studied the philosophical physiology of the plant, but I do profess to know what it requires to enable it to produce a good quality and a paying quantity, and I believe I have succeeded in convincing my employers, both here and in England, that I know something of the business which I have undertaken. I say again, let time show who is right.

17. Your 9th para. continues, and you say "that the locality you now occupy (Tinnevely and Madura) is much more favourable than the vicinity of Coimbatore, and I even suspect than that occupied by our present farms for the culture of the Mexican cotton; and I think, moreover, that had the station been differently occupied during the last three years, the result would probably have proved more satisfactory than we have had here." In all your reports you have asserted that the black land is unsuited for the American cotton, and on that account you removed your experimental farms to a locality where there is nothing but red land, and which by the way has the benefit of both monsoons. How then can you assert so positively that the plant will grow here in black land, which has only one monsoon, and that a very scanty one?

18. I think that an experiment of seven years in one place is quite enough, and I hope the Government will send you out into the open plains to try your skill in the black and red soil with only one monsoon. If the culture of American cotton ever confers the expected benefit on India or England, we must get out of the little oases at the foot of the hills and spread it over the length and breadth of the land; and I think the climate of this part of the country affords us but little hope that we shall be able to make it a staple product. However, while I do all I can to introduce the American cotton and the American gin, I must record my fear that the success of the first is exceedingly doubtful, and the latter I assert to be wholly impracticable; and that I look to the Indian cotton and the Indian churka to gain for India that which the exotic plant and the foreign machine can never obtain for her, viz., a good clean article.

19. You report results at your farms equal to average of American land in the American climate, and yet you say that you think this part of the country better suited for the production of the American cotton than your present farms. Truly you make this an El Dorado for cotton; I hope the Government will take you at your word, and send you to test your opinion.

20. The plans which I proposed in my letter of the 26th January 1846 have been strictly adhered to; you found no fault with them then; and while every effort has been made to introduce the American cotton, the native article has had due attention paid to it. As I did not hope for much success in the former, I am not much disappointed with the poor prospect of a good crop from the plants which are now under culture by the people themselves. What more can you want than to see the ryots take up the matter? The business is in the hands of the ryots, with ample inducements to do all they can to make it successful. I have agreed to pay them two rupees per month for each acre during the two or three months that embrace the cultivating season, and two rupees above the market price per podbee of 284 lbs. in the seed, or five rupees above the market price per candy of 500 lbs. of clean cotton. The business, as I have said, is in the hands of the ryots; if it succeeds they will extend the culture; if not, the experiment, after a fair trial, will be for ever set at rest. I consider that the main object of my mission here is to improve the native cotton, at the same time to do all I can to introduce the exotic; but I must place the latter as the "secondary" purpose for which I was sent here. My most sanguine hopes in reference to the improvement of the native cotton are being fully realised. I was told by the gentlemen at Tutacorin the other day that more good cotton had been brought there this year than ever known before, and I conclude that my humble efforts at improvement have already had some influence. My object has been to effect a general benefit, if possible.

21. I am happy to say that the plans I have acted upon have been approved of by my immediate superior, the Collector of the district, the Government of Madras, and the Honourable Court of Directors. How then can you say that "In so acting, I repeat, it is my conviction you neither meet the wishes of Government nor fulfil your own engagements as its servant"?

22. You say that I do not understand the mechanism of a cotton gin; how then do you expect to teach the principle of the machine to the people of this country? I made some little alteration in the pulleys to make them carry the band properly, but it then did not run well, the band coming off constantly, and I intended to send the gin back to you; but after I left, the ryot who has charge of the cotton cultivation at Courtallum, himself made the extra pulleys with flutes, in order to make them carry a leather rope instead of the band; he ginned the cotton by that means. I was pleased with his ingenuity, and returned the gin as the ryot sent it to me, but that either of the gins were in any degree injured I deny; for all you had to do to make them as they were originally was to put your pulleys on again in one case, and in the other to replace the apron of the hopper in its original position.

23. While I strenuously maintain my own views I can assure you that if you can obtain the sanction of Government for the establishment of a cotton plantation of 1,000 or 2,000 acres, and you will procure me the land, I shall be happy to have it cultivated on the most scientific principles, as known and practised by the most successful planters in America. I will even adopt your suggestions, that the world may be satisfied that all that can be has been done to make the American cotton successful in this part of the country.

24. I have replied to your letter from a high sense of duty to our employers. But I deny your right and doubt your authority to address me in the manner you have; but you seem to consider yourself at liberty to use such language in your official communications as your sense of propriety dictates, even though it be an open violation of the rules of courtesy among public servants.

(signed) T. J. Finnie,

Aroopocotta, 18 December 1848.

Cotton Planter.

From Surgeon R. Wight, Superintendent Cotton Farms, Coimbatore, to T. J. Finnie, Esq., Cotton Planter, Aroopocotta.

Sir,

I HAVE the honour to acknowledge the receipt of your letter of the 18th ultimo, and cannot help feeling and expressing surprise at its very peculiar tone. I have read and re-read my letter, to which it is a reply, and can find nothing therein to justify the style you have thought fit to adopt. There is nothing in it I have not before told you without calling forth an expression of displeasure, except the remark that you had not studied the constitution and habits of the American cotton plant, and that you were unacquainted with the mechanism of a cotton gin. The first of these allegations, being matter of opinion which I cannot demonstrate, I at once withdraw; the other, being susceptible of proof, I retain it.

2. Another passage in my letter, judging from the tone and space devoted to the reply, seems to have given you pain, and, therefore, calls for some explanation. I allude to the fourth paragraph, in which I express surprise at the difficulty you find in getting

II.
Madras.

cotton enough to keep your gins running, considering the confident language employed in your letter of the 24th May. If you will take the trouble to turn again to that letter, you will find that you, with perfect seriousness, assure Government, nearly in so many words, that by means of reason applied through the shafts of ridicule you had brought about a pacific revolution in cotton, and a reformation in cotton cleaning had banished filth and rubbish from the cleaning houses, and deodorised them of their previous compound of villanous smells; and finally pledged yourself under certain circumstances to have all the cotton of the district cleaned according to a given sample. Then peruse my very slight and equally sober reference to that letter, and I think you will at once exonerate me from intentional offence. It is true, you do not mention seed cotton; but as I had been for some months transacting much business in seed cotton, buying it and giving it out to be ginned and churkaed, I inferred you were doing the same, giving part to be ginned and part to be cleaned by the "churka alone," (an expression by the way on which you lay much stress, but which I do not clearly understand); so having pledged yourself to get all the cotton of the district so cleaned, I naturally supposed that for the future you would encounter no further difficulty in procuring, out of the many hundreds of thousands produced, a few thousand pounds to keep your gins at work. Hence the expression of surprise to which I gave utterance. Had I supposed an allusion to circumstances you had officially placed on record could have given you pain, I should of course have avoided the topic.

3. Having promised these explanations, I shall now proceed to reply to some other points of your letter, merely observing that, setting aside my own estimate of the tone of other parts of my letter which may be partial and incorrect, I shall view yours as conveying first your deliberate and carefully considered defence of those parts of your proceedings impugned by me; and, secondly, your final convictions on the impracticability of profitably growing American cotton on the open plains of the Indian peninsula, and forward it to Government without note or comment beyond what a copy of this letter conveys.

4. On various points our opinions widely differ; on none more widely than on what we respectively esteem the obligations you came under in engaging to serve the Madras Government. My views on that topic have, in various forms, been repeatedly stated hitherto without exciting displeasure; why, therefore, the extreme irritability of temper displayed in the first two or three paragraphs, and more or less throughout the whole of your present letter? You claim the right of thinking and acting for yourself in the management of the business intrusted to your care. I feel confident I have never gainsaid that claim, but I have said, and do now say, that I thought the quantity of work done was incommensurate with the time occupied in doing it. Your last statement, dated 15 December 1848, shows that up to that period, about three years' work, you had only purchased 202 bales of cotton, and during the whole period you have declined attempting even to cultivate an acre, except at the Courtallum Model Farm, where I believe you planted a few acres. This I consider most incommensurate; but considering that fully a third, or perhaps more, nearly a half of the time, you have been absent from your station, it is not much to be wondered at. I have known you absent for nearly seven months at a time, leaving your duties to be carried on as they best might by some subordinate. Perhaps you think that right; I do not.

5. You tell me your immediate superiors, the Collector, the Madras Government, and Court of Directors, have all approved of the plans you have acted upon. For the opinions of all these authorities I have the very highest respect; but, as head of this establishment, and intimately acquainted with its duties, I form my own opinions and retain them, notwithstanding your assurance to the effect that they are in opposition to the whole. But I trust you will excuse me for going so far as to mention the expression of a doubt as to the correctness of your information, when stating that any, much less all the authorities you mention, approve of your plan of acting in absenting yourself so much from your station. On one occasion, as above stated, you were absent for seven continuous months, (a few days more or less); and within four or five months after, left again for a further period of three or four months. I cannot positively say that, had such repeated and prolonged absence from the immediate sphere of your duties been officially brought to the notice of either the local Government or the Court of Directors, either would have disapproved of it; but I do say, that if approbation was expressed, you are indeed a highly favoured servant, such indulgences not being the practice of this Government.

6. The contradiction in my letter, to which you call attention in the 6th paragraph, is easily explained, all cotton purchases here are made, not in candies, but in load or half candies; and 5 rupees a load being the current expression of the price of cotton, the figure 5 in place of 10 was accidentally put down in the draft, and overlooked in correcting the copy. Our bales are 300 lbs.

7. The presumed change in my views, adverted to in your 7th para., and emphasised, as proceeding from an unworthy motive, by the addition, in your own handwriting, of two points of admiration, is also susceptible of easy explanation, fully exonerating me from the charge of wayward fickleness.

8. You are correct in saying that, in July 1846, I recommended the purchase of churka-cleaned cotton for comparative trial, by English spinners, with ginned cotton of the same description. The suggestion was approved by Government and the purchase ordered. My letter and the corresponding Minute of Council were subsequently forwarded to the Court

of Directors. The Court approved of the suggestion, but, I presume, observing that purchasing the ready prepared marketable article would change the character of the transaction from an experimental to a mercantile one, and thereby involve them in an illegal proceeding, directed that sea cotton should be purchased and cleaned by us, partly by the gin, partly by the churka. This I did last season, purchasing seed cotton, storing it in our godowns, and then issuing it partly to be ginned and partly to be churkaed.

9. It is possible that in taking that view, I may have misinterpreted the Court's motives for giving such an order, but I rather think I have not, as it is based on some remarks made by a merchant. And if I have not erred, it follows, that the whole of that part of your letter relating to the purchase, by Government, of churka-cleaned cotton, must fall to the ground, such purchases being illegal, at least so I understand the 4th clause of the present charter; and, therefore, when you proposed the measure to me, I recommended your applying for fresh instructions before engaging in a transaction which might bring the Government into collision with the mercantile interest, as being a departure from the provisions of an Act of Parliament.

10. Before finally taking leave of the subject of tergiversation with which you so unceremoniously charge me, and for a bad purpose too, have the goodness to reperuse your diary for September 1846, copy of which I laid on the Government table, 11th November of that year, and then your letter of 13th January 1847. Having refreshed your memory, you will perhaps feel disposed to withdraw your uncharitable insinuation as to my motives, supposing that I have changed my mind, which I deny.

11. The terms "Neeze" and "Ryotwaree," as used in your 12th paragraph, are unknown to me; the first, indeed, I have never heard, and presume it is a local word. With the term "ryotwaree" I am familiar; but have always understood that it applied to a system of land tenures and assessment, not to any kind of labour or mode of cultivation. In this district the term "malewarren" is in use, meaning an agreement between a proprietor and cultivator; perhaps it is to that you allude. In the same paragraph you refer me to the Minutes of Consultation, 16th December 1845, as forbidding the establishment of a cotton farm. That order is not, I believe, altogether a case in point; but I shall admit its validity as such, and in return beg leave to refer you to Minutes of Consultation, No. 757, dated 30th June 1847. From these I learn you were very anxious to have a small model farm, about 50 acres, at Courtallum, which was readily sanctioned. Had a similar one been solicited with equal earnestness at Aroopocotta, for the purpose of teaching the natives of that place how to cultivate American cotton, I apprehend it would not have been withheld. Under this conviction my opinions remain unchanged. I still think the natives there should have had the advantage, on a small scale, of both precept and example, and feel certain, that had you been as urgently solicitous to confer that benefit on them as you were to give it to those at Courtallum, Government would not have withheld its sanction. If you applied for a farm of 500 or 1,000 acres, I can easily understand why it was not granted.

12. In your 14th paragraph, I am sorry to observe, you put an exceedingly forced and illegal construction on my language, thereby weakening your own position and defence, by resting it on an untenable and undignified quibble. A moment's reflection must have shown you that I simply record a fact, showing the equal hardness, or, if you will, the equal tenacity of life, of the two plants, and deduce conclusions widely at variance with those you draw.

13. The next seven paragraphs of your letter, from 15 to 21 inclusive, I shall pass over almost without note; not that I can subscribe either to your views, as propounded in them, or to the manner you support them, but because I feel unwilling, while placing them before Government (as expressing your deliberate opinions as to the impossibility of growing American cotton in Southern India, and as your reply to my objections to your proceedings on that head), to weaken whatever effect they may be calculated to produce in your favour as a whole, by pointing out their many weak points. One or two may, however, be noticed.

14. You all through lay great stress on the importance of having the benefit of the two monsoons in the cultivation of American cotton in India. I was formerly, to some extent, of the same way of thinking; but now I am convinced the opinion is most erroneous. A considerable portion of our farms, both last year and this, was sown at such a season as to obtain both monsoons, namely, in May and June. The first monsoon, in July, brought the plant into full bearing; the second followed after the picking had begun, and ruined nearly the whole of the remaining crop. Last year I did not attach so much importance to the fact, owing to the unusual continuance of the rains, which injured crops sown even so late as September; but this year the October rains, though very scanty, notwithstanding inflicted severe injury on our June-sown lands. Those sown at the end of the first monsoon, in August, yielded fair crops in November and December, coming into pick after the second monsoon had passed over.

15. You have repeatedly adverted, in the course of our correspondence, to the insufficiency of rain in India to bring to maturity a crop of American cotton. On this point I have always differed from you, and I am now most anxious to have that difference settled, by reference to the rain-gauge register of any of the cotton-growing states of America. Can you assist me in obtaining one? My own impression is that comparatively little is required

II. Madras.

after the ground has been once well soaked; you think otherwise. A reference to a rain register is very desirable. Already a reference to a heat one has shown that the mean temperature of Madras, during the cool months, our cotton cultivating season, is about seven degrees below that of Natchez, in Mississippi, during the summer, or cultivating season, of that province. The climate, therefore, of Madras, during our cool season, is not too hot, but, if anything, too cold, for the cultivation of American cotton at that season of the year. A similar comparison of rain-gauges would, I believe, in like manner show, that so far from being too dry, the climate of the Carnatic at that season is more humid than the summer in Mississippi. The Madras register, from the 1st September to the 31st December, gives an average of nearly 34 inches. I cannot suppose that the falls of rain in Mississippi, between the 1st of April and 31st July, give so much, neither can I suppose so much required for any dry crop.

16. In your 18th paragraph you propose that I should be sent into the plains, to try my skill on black and red soils, with only one monsoon. To this I am most agreeable; I have been long wishing to have it tried, and supported your application for employment under this Presidency for the express purpose of having the feasibility of the culture of American cotton on the plains properly tested by a skilful and zealous planter. At that time you promised me your energetic support. A volunteer, in the person of the acting collector of Tanjore, is now kindly giving the aid you then promised. He writes me, on the 6th December, "that American cotton seed, sown early in September, is wonderfully fine; plants up to 2½ feet and 3½ feet high, and loaded with bolls, and only waiting for the bright sunshine to burst. That sown the beginning of October is just now opening into flower, and is only about one foot high, evidently kept back by the heavy monsoon."

17. In your 22d paragraph you dispose of my complaint of your spoiling our gins, and then blaming us for their inefficiency, by asking me a question—"If I do not understand the mechanism of a cotton gin, how then do you expect to teach the principle of the machine to the people of the country"!! This proceeding is ingenious, but not conclusive, not merely as laying you open to a counter-question, but because it is not probable natives would consider the builder of such a machine so ignorant of his business as to deem themselves called upon in the first instance to alter its construction, to the injury of its working properties, and then complain of its inefficiency. This you did when you altered the position of the brush pulleys of the first gins you got, as shown in the one you condemned and returned as being so bad you could do nothing with it.

18. The alterations of which I complain are not those of the apron of the hopper and such like small matters, but of the brush pulleys, by which, in the one case, the working of the gin was so much impeded that six men in place of four were required to drive it, and in the other it was made to revolve the wrong way.

19. The little American gin, when it left this, was in perfect working order, and had been in use for some time. When you got it you "made some little alteration on the pulleys to make them carry the band properly, but then it did not run well, the band coming off constantly." On its return the pulleys and band were restored to their original position, and during some days it was worked here without a single slip.

20. In your 23d para. you "assure me that if I can obtain the sanction of Government for the establishment of a cotton plantation of 1,000 or 2,000 acres, and I will procure you the land, you shall be happy to have it cultivated on the most scientific principles as known and practised by the most successful planters in America," &c. Permit me in return to assure you that in making such an offer you undertake more than you can perform. I do not allude to your knowledge or otherwise of the scientific principles of American agriculture, for on that head I am ignorant; but to my own acquaintance with the difficulties of Indian farming, and my knowledge of the extent of ground comprised within an area of 1,000 or 2,000 acres, which enables me to inform you that it is much easier to undertake such a task sitting at the desk than to fulfil it in the field; such a boast is lost on me.

21. Your concluding paragraph is so exceedingly appropriate to the whole tenor of your extraordinary letter, that I must beg the favour of being permitted to adopt it as my own, and request you will have the goodness attentively to re-peruse it as the conclusion of this letter.

22. "I have replied to your letter from a high sense of duty to our employers. But I deny your right, and doubt your authority, to address me in the manner you have; but you seem to consider yourself at liberty to use such language in your official communications as your sense of propriety dictates, even though it be an open violation of the rules of courtesy among public servants."

(signed) **R. Wight, Surgeon,**
Superintendent Cotton Farms.

Coimbatore, 30 January 1849.

P.S.—In your 20th para. you say, "The plans which I proposed in my letter of the 26th January 1846 have been strictly adhered to; you found no fault with them then; and while every effort has been made to introduce the American cotton, the native article has had due attention paid to it."

This sentence contains three distinct propositions. On the first, that your plans have been strictly adhered to, I would merely remark that such may be the case, though, so far

as I understand them, I rather think not; but of this I feel more certain, that if they have been adhered to, they have not in any instance been worked out to useful or satisfactory conclusions, though three years have now elapsed since they were sketched.

Regarding the second, which I have underlined, I have only to remark that that letter was not addressed to me, hence it was not my place to remark on it unless called upon to do so by Government. Had I been so called upon, I beg to assure you that it is sufficiently open to remark; but notwithstanding its openness to criticism, I am free to confess that had I, when it was first sent in, been desired to pass an opinion on it, I should have felt disposed to entertain and express favourable anticipations of the result of your proposals; partly on account of your confident strain, and the large promises with which you introduce them, but above all on account of the superabundant zeal with which every page of your letter seems to overflow. But where are the results?

From the third, that every effort has been made to introduce the American cotton, I beg leave distinctly to record my dissent, so far as you are concerned. During the three years which have elapsed since that letter was written, you have not once, I believe, been in Arappocottah from the middle of August to the middle of October, the proper cultivating season of American cotton; so that whatever may have been done there was done by subordinates in your absence. I therefore conclude, as regards that place, you are scarcely in a better position to assert that every effort has been made to introduce the American plant than I am. Your allusion to native cotton is too general to admit of my expressing an opinion on the subject.

I have, since the 11th para. of this letter was transcribed, found the two terms adverted to in it, and find they are Bengalee words, Neez and Ryottee, not Ryotwaree. The explanations given do not induce me to alter or modify my views or suggestions as stated in my last letter. If a farm is cultivated on ryottee contract it is simply ryot cultivation, not American. What I urge is American cultivation by hired labour, and whatever you may think to the contrary, I know it will often succeed while the other fails.

(signed) R. Wight.

MINUTE.

1. I THINK the time has now fully arrived when Government should come to a final decision on the subject of the continuance or otherwise of the experimental cotton farms, and the longer employment of Dr. Wight and Mr. Finnie, as well as of the subordinate assistants employed under them,

2. The last despatch from the home authorities on this important topic is dated the 4th of July 1848, and in it the Honourable Court distinctly intimate their concurrence in the view taken by this Government in the letters to which that despatch is a reply, as to "the expediency of relinquishing the Government cotton farms in Coimbatore."

3. With this authority before us, it might, perhaps, have been expected that we should have acted upon it without the delay that has taken place; but I have been anxious to look again narrowly into the whole question, not with the smallest doubt of the wisdom and propriety of the Honourable Court's opinion (on which I had, in fact, previously expressed my sentiments by anticipation in my minute of the 15th of July 1848), but with the desire of proposing to the Board at least the outline of the arrangements that would become requisite on the cessation of Dr. Wight's functions as Superintendent of the farms.

4. With this object in view I have, for the second time, gone most carefully through the whole of the correspondence and papers on the cotton question; and I think it proper, before I state my plans, to repeat my perfect conviction, that the East India Company and this Government, in obedience to their orders, have already done everything that was either requisite or called for, to give the experimental farms the fairest, fullest, and most liberal trial; and I am therefore not only satisfied that they should be forthwith discontinued, but I conceive that their further existence would be calculated to do great harm to the cause which they were originally intended to promote, by unavoidably leading the natives of the cotton-growing districts to imagine, that Government alone have the means and faculty of raising American cotton, or of improving the culture and quality of the indigenous plant.

5. My strong impression, from a renewed perusal of the papers now before me, is, that the cultivation of American cotton in any part of this presidency will always be attended with a chance of failure, owing to the variableness and unsuitableness of the soil and climate; but that it will grow, and may occasionally produce heavy and sufficiently remunerating crops seems to me to have been undeniably established. This latter opinion, however, I must observe, goes even beyond the apparently general deduction of the different American cotton planters who have been employed in the Madras districts. Some of them have unhesitatingly pronounced the experiment to be hopeless, amongst whom I may mention the names of Mr. Mercer and Mr. Finnie, the latter at present stationed in Tinnevely; and not one of them, that I can perceive, has ever supported the sanguine hopes and predictions of Dr. Wight, and, perhaps, I may add likewise of Mr. Wroughton, the absent principal collector of Coimbatore.

H.
Madras.

6. The period, however, for predictions and prospects strikes me to have passed away. The farms have now been in full operation for the long lapse of seven years, exclusive of preceding extensive measures, all of which were nearly abortive. And I think it is impossible to read, as I have done, the papers herewith circulated, without seeing that the experimental farms have latterly merged into a mere mercantile speculation, and that the arguments adduced for their longer continuance are based far more on future hopes than on past experience.

7. It would be quite useless for me, and I may candidly declare that I am not qualified for the task, to enter into any lengthened disquisition as to the causes of failure. I believe it to be solely ascribable to the natural defects of climate and soil, especially the former. I would appeal to any persons who have passed much of their life in India, and who have practically studied such subjects, to say whether those defects are not often found to be unaccountably insurmountable, and that, even when occasionally overcome, the success is not to be ascribed to some, to us, unintelligible secret effort or working of nature, which it is impossible to fathom. I have never myself attempted the cultivation of cotton, but I have been, in various parts of India, a very successful and extensive practical gardener in flowers, fruits, and vegetables; and I have constantly found it impossible to raise or bring to perfection, in one place, plants which grew and produced most largely and luxuriantly in others. Who, I would inquire, can explain why that delicious fruit, the mangosteen, is confined to a small circle of the Straits of Malacca; why the maize, or Indian corn (which in every part of India, that I am aware of, requires unceasing irrigation), grows on the hills in the vicinity of Nankin, in China, as a dry crop; or why I found that the pumplenoses (shaddock of the West Indies), which grew in my garden at Bhoj, in the arid and proverbially hot climate of Kutch, were far superior, both in size and flavour, to any that I have ever seen either at Bombay or on the coast of Malabar?

8. I see that Dr. Wight attributes the failure of the cotton in Coimbatore to the want of humidity in the climate; and it is very likely he is correct; but, with every deference to his botanical and other acquirements, I differ from him in his interpretation of a humid climate; he defines that, as I understand him, to depend on the quantity of rain, but this I must be permitted to question. The lower parts of Seinde, in which rain, beyond a few showers, does not usually fall in more than one out of three or four years, is, for several months of each year, the most humid climate I have ever lived in, and I believe there are other regions of the globe to which the same remark may be still more forcibly applied.

9. I have been led to make these perhaps not altogether relevant remarks, to show that I have not taken a superficial view of the important question before me; I give Dr. Wight the highest credit for his zeal and perseverance; but had he done far more to demonstrate his plans than he has done, I reiterate my opinion that the ryots should now be left to themselves, with the advantage of such advice and instruction as can be given to them through the Collectors and Revenue establishments, aided by the subordinate cotton assistants who will be attached to them, at least for a time.

10. I now proceed to explain the arrangements which I would recommend being made.

11. Mr. Finnie's engagement with the East India Company having been made for two years certain from the 16th of October 1847, he ought, I think, to remain in Tinnevely till the expiration of that time, and be placed at once wholly and unqualifiedly under the orders of the officiating Collector. He should be directed, through Mr. Elton, to give his whole time and attention exclusively to instructing the natives in the practical use of the gins, presses, churkas, thrashers, and other implements required in the cleaning and preparation of the cotton; but I would say he had better not interfere with the cultivation of the plant (whether American or Indian) further than offering his advice when asked for; because, if he tenders his advice, and the crop should afterwards, from any cause, unfortunately fail, it will be, however erroneously, sure to be attributed to his innovations. He has already, I believe, at least one assistant attached to him, and I would suggest that Dr. Wight should be instructed to transfer immediately to the Collectorate of Tinnevely, for the purpose of being placed under Mr. Finnie's tuition, one half of the East Indian lads now with him. These lads have already, of course, obtained a certain degree of information and knowledge of the work required of them; and I hope, with Mr. Elton's supervision, and Mr. Finnie's valuable practical instruction, they will be able to take charge of all the gins and instruments above alluded to (including a part of those which are on their way from England), by the period which it is proposed to fix for Mr. Finnie's withdrawal from the public service. Mr. Finnie should be further directed to desist immediately from purchasing any more cotton on behalf of Government, and to close his accounts, and break up whatever establishment he may have entertained for that duty. He will be clearly made to understand, that all his proceedings are, henceforward, during his residence at Tinnevely, to be conducted under the authority of the officiating Collector; and that any representations or observations which he may wish to offer on the subject of cotton must be addressed to, or at all events through that officer for the information and orders of Government.

12. Dr. Wight should also be instructed to discharge, at once, all establishments which have hitherto been employed for the experimental farms, and to place Messrs. Sherman & Cuxton, and the other half of the East Indian boys, at the disposal of the officiating principal collector of Coimbatore, who will be pleased to assign to all and each of them their proper posts and duties. The gin-houses at Coimbatore and Aroopocotta will, of course, be taken charge of by the collectors, and, for a season at least, the ryots should have the use of them gratis, as well as of all other agricultural and cotton-cleaning instruments, which have been so profusely and readily supplied by the Honourable Court; but I by no means deem it either necessary, or even advisable, that this system should be considered a permanent one, and both the collectors will hereafter be expected to report to Government when, in their estimation, the ryots ought to be required to pay some trifling sum for the use of the Government instruments and apparatus.

13. Government will be prepared to consider, favourably, and to submit for sanction to the proper quarter, such moderate increase to the present salaries of Messrs. Sherman & Cuxton, as well as to the allowances of the East Indian lads, as the collectors may severally see fit to recommend, so soon as the new arrangements are carried into execution. It occurs to me that on the departure of Mr. Finnie, it will be desirable that either Mr. Sherman or Mr. Cuxton should be transferred to Tinnevely from Coimbatore, but wherever they may be eventually stationed, their chief (or perhaps I may say sole) occupation in both districts will be to overlook the proceedings of the East Indian lads who, I have already observed, it is supposed will be fully qualified to be put in charge of the cotton-cleaning machines and implements of all kinds. The revenue authorities will, of course, be most careful to guard that none of the assistants or others who may be employed on the duties here described, receive, on any pretence, the smallest private gratification or present from persons, whether the actual growers of the cotton or the intermediate brokers, for work done with the public machinery and at the Government gin or press houses.

14. I purposely refrain in this minute from any critical examination of the recriminatory discussions between Dr. Wight and Mr. Finnie, which latterly appear to have formed almost the sole theme of their mutual correspondence; sufficient evidence is given by it that those two gentlemen never could again have acted together with advantage to the public interests; but as that can be no longer required in the remotest degree, it is needless to enlarge on the subject. I must, nevertheless, do Dr. Wight the justice of stating (particularly as I had at one time imbibed a somewhat different impression) that he has been consistent throughout, and that although his ideas regarding Mr. Finnie may have at times been rather acrimoniously expressed, I can find considerable palliation for his warmth. On the other hand, when I come to carefully compare the notes I made on Mr. Finnie's letters, I discovered various discrepancies and assertions which were open to refutation; and many of which he has latterly vainly, in my eyes, attempted to explain away.

15. The only remaining point which seems to call for my notice is the letter addressed on the 1st of March 1848, by the Manchester Commercial Association, to the Honourable the Court of Directors, and a copy of which was transmitted to us in the Court's despatch of the 15th of the same month. I observe that the association state "that it (New Orleans cotton) can be produced cheaply and profitably has also been satisfactorily proved;" and that they go on to assume, "that had the same amount of encouragement been afforded in that part of India (Coimbatore) as has been given in Dharwar, far greater quantities would ere this have been produced."

16. To both these assertions I most unhesitatingly demur; I neither, after the most unbiassed and anxious deliberation, admit the one nor the other. I do not deny but occasional small batches of excellent cotton wool have been sent to England from Coimbatore, but they formed the exception, not the rule; and with respect to the alleged absence of sufficient encouragement, no one who has taken the trouble and pains which I have felt it my duty to do, to obtain a perfect insight into the whole matter, and who has thereby arrived at a knowledge of the readiness, the liberality, and the deep anxiety which the Honourable Court and the Madras Government have shown on all and every occasion to do whatever was pointed out or asked to, advance the object in view, will, for an instant, admit the correctness or applicability of the accusation; my own decided sentiments are, that the merchants of Manchester must blame themselves for any inadequacy of the future supply, unless they come forward (as has been over and over again urged upon them) and apply their own agents and capital to the task in which Government have set them an example, and pointed out (according to their own showing) so easy a course.

(signed) Henry Pottinger.

4 May 1849.

MEMORANDUM.

Dr. WIGHT, superintending cotton farms, came to my office this day, and I took the opportunity of asking him to explain to me, for the information of Government, the exact state of his department at the present moment.

He states that he has about 500 acres of land, part waste, part puttah land, or land held by ryots on puttah, all of which is ploughed and ready for seed. July being the

II.
Madras.

proper sowing season, he proposes to sow the whole of this with three different kinds of American seed, and a large portion with the Sea Island seed lately received from the Honourable Court, retaining some portion of this Sea Island seed for experiments on the coast lands.

The whole of this 500 acres he states is worked by the farm establishment and cattle; in addition to this 500 acres he is preparing about 200 acres to be cultivated entirely by paid native labourers working on contract, employing their native cattle and implements, but under his superintendence.

So far as has passed the present year is favourable, and the establishment is in advance of former years, and well prepared to take advantage of the season. Fodder is in course of being provided for the farm and ginning house cattle, by ploughing and sowing waste land with cholam, to be cut before it comes to seed and dried like hay; about 60 acres of land is thus prepared and will be available next year for a cotton crop.

The land held by Dr. Wight from the ryots, and which he designates puttah land, is rented from the ryots on payment, if dry land, of the Government assessment, and half as much again as compensation. If garden land, of which there may be about ten acres, on payment, as compensation, of double the Government assessment.

Dr. Wight states that the Honourable Court's orders for the supply of 6,000 bales have been about half executed; and he thinks it desirable to continue the supply of ginned cotton, in order to keep the gin-house cattle at work at seasons when they would otherwise be idle and expensive to Government, and because the ginned cotton is profitable; yielding 20 or 25 per cent. upon cost and charges. Mr. Finnie, too, has got a good portion of the Court's order for churkaed cotton unexecuted. Dr. Wight has now 100 bales of country cotton at Cochin ready for shipment, and 8,000 rupees worth purchased at Coimbatore being ginned as rapidly as possible.

Last year's crop having been short, he cannot say how much will be obtained; but 700 bales might be ginned and sent to Cochin for shipment before the end of 1849. Under his system of early sowings, the picking of the crop commences in November and finishes in April. He calculates to have 500 lbs. per acre of seed cotton (American) from the land he himself cultivates, which, from 500 acres, would give 250 bales, and 300 lbs. per acre from the 200 acres cultivated by native labour, which would yield 60 bales; and says he shall be much disappointed at a lower result. He also calculates on the outturn of the present year paying all agricultural expenses of the farm, exclusive alone of his own salary; and says that, now that the seed is sown early, and not as formerly in the cold weather, he considers the American cotton no longer an uncertain crop.

I explained to Dr. Wight I wished to lay this information before Government, though I in no way hinted the views of the Honourable Court's despatch, and I read him the notes I had taken, and he assented to their correctness. It seeming to me desirable that what is above stated should be known to Government before a final decision of the question of the discontinuance of the farms is passed, I have ventured to send this memorandum for the consideration of the Right Honourable the Governor and the Members of Council.

(signed) H. C. Montgomery,
Secretary to Government.

11 May 1849.

MEMORANDUM.

THE accompanying memorandum, containing the result of Sir Henry Montgomery's verbal communications with Dr. Wight, reached me yesterday evening; and, after very careful reflection, I beg to state, that it seems to me to form a strong confirmation of the opinion expressed in my minute "on cotton," of the 4th instant, as to the evils done, and doing, to the native culture of both the American and Indian plant, by the existence and longer continuance of the experimental farms.

I have seen nothing in the despatches from England that would lead me to believe that the Honourable Court at any time intended the experiments to be carried to the extent here shown; and I am surprised to observe, that Dr. Wight, who not long ago strongly urged a remission of half the land rent, is now paying for ground to be planted with cotton to the ryots, from whom he has obtained it, an additional rent equal in some cases to half and in others to double the demand of Government. It seems to me to be morally impossible that the people can comprehend the motive for this arrangement (which I acknowledge I do not), and that it must have the effect of deterring, in lieu of encouraging, them from entering into a competition with Government, who have such command of money and means.

My recommendation now is, that the plans proposed in my minute shall still be enforced, and that the officiating principal collector of Coimbatore (aided by Messrs. Sherman, Cuxton, and the East Indian lads) shall be instructed to attend to all those parts of Dr. Wight's contemplated measures for this season (year) that cannot be laid aside, or that the natives cannot be induced to undertake on their own behalf. The collector may be authorised to purchase all the cotton, at a favourable rate, grown on the land, and to have it cleaned and shipped.

(signed) Henry Pottinger.

12 May 1849.

MINUTE.

HAVING read and fully considered the minute of the Right Honourable the Governor, and referred to the papers circulated with it, I am of opinion that it is time to put a stop to Dr. Wight's experimental cultivation of cotton in Coimbatore, and also to his mercantile operations in purchasing and shipping cotton the produce of that district, with a view to the ascertainment of its value in the English market; and I concur in the suggestions of the Governor for bringing the business both of the farms, and of contracting with the ryots for the produce raised by them, to a close as early as practicable.

With respect to the farms, I presume that there is nothing on the ground at this season, and that the land may be relinquished at once, and the former establishment dispensed with. All that remains to be done, I conceive, is to prepare the cotton of the last crop, and dispatch it for shipment. With respect to contracts for produce, all that have been entered into must, of course, be fulfilled, and the cotton prepared for shipment as usual, and the establishment can afterwards be broken up.

I had written thus far, when Sir H. Montgomery's memorandum, dated yesterday, and the Governor's minute of this date, came to me in circulation, and I find that the state of things as to the farms is much more complicated than I had supposed, and I must say, than there was reason to anticipate from what had previously been known of Dr. Wight's proceedings. It seems he has 500 acres worked by the farm establishment and cattle already ploughed and ready for seed, part of which is held of ryots. His engagements with these ryots, which it is to be presumed are for the year, of course must be respected.

Besides this, he has entered into a contract with ryots for the cultivation of 200 acres more by their own means. This contract, also, must be carried out, I conceive. Both of these undertakings, I apprehend, may be worked out in the manner recommended by the Governor for the season, and nothing should be done with a view beyond the season.

The produce of both the 500 and the 200 acres, I conceive, is to be delivered on account of Government; and all that will need to be done is to prepare it for shipment, which will be attended to under the orders of the acting collector by the subordinates now attached to Dr. Wight.

I suppose it will be necessary to purchase cotton to keep the gin establishments at work till the produce of the farms is delivered and ready to be brought to them.

It may be as well to allow Dr. Wight a certain time for closing his accounts, in which time he should give his advice and assistance to the acting collector, in order to carrying out the arrangements now contemplated.

I concur with the Right Honourable the Governor in respect to the subsidiary arrangements generally in Coimbatore, and in his recommendation with regard to Mr. Finnie and his future proceedings in Tinnevely.

(signed) D. Elliott.

12 May 1849.

MINUTE.

I concur with the Right Honourable the Governor and the Honourable Mr. Elliott in the expediency of bringing all connexion with the experimental cotton farms to a close as early as may be compatible with the engagements which have been entered into by Dr. Wight with the ryots of Coimbatore. If the land has not been sown, and the ryots do not object to receive it back again, it should at once be placed in their possession.

Should they, however, evince a disinclination to receive it back again, it should be retained until the expiration of the period for which it was taken, perfectly good faith being kept with them.

The contract for the cultivation of 200 acres by the ryots by their own means must also stand good.

I concur also in the arrangements proposed regarding Mr. Finnie.

14 May 1849.

(signed) H. Dickinson.

REVENUE DEPARTMENT.

(No. 544.)

EXTRACT from the Minutes of Consultation, under date the 1st June 1849.

THE Right Honourable the Governor in Council proceeds to take into consideration the letter in this department from the Honourable Court of Directors, dated 4th July 1848, No. 11, on the subject of the experimental cotton farms under this presidency.

The following correspondence and papers connected with the subject are also ordered to be brought upon record:

Letters from Surgeon R. Wight.

[Here enter 21st December 1848 and 31st January 1849.]

Minute by the Right Honourable the President.

[Here enter 4th May 1849, No. 555.]

II.
Madras.

Memo. by the Secretary to Government in the Revenue Department.

[Here enter 11th May 1849, No. 556.]

Memo. by the Right Honourable the President.

[Here enter 12th May 1849, No. 557.]

Minute by the Honourable Mr. Elliott.

[Here enter 12th May 1849, No. 558.]

Minute by the Honourable Mr. Dickinson.

[Here enter 14th May 1849, No. 559.]

Para. 1. The Governor in Council is quite satisfied that the Honourable Court of Directors, and this Government, in obedience to their orders, have already done everything that was either requisite or called for to give the experimental farms the fairest, fullest, and most liberal trial; and is of opinion that the existence and further continuance of those experiments is calculated to do harm to the cause which they were originally intended to promote, by unavoidably leading the natives of the cotton-growing districts to imagine that Government alone have the means and faculty of raising American cotton, or of improving the culture and quality of the indigenous plant. In pursuance, therefore, of the views communicated by the Honourable Court in para. 4 of their despatch, he has resolved upon the discontinuance not only of the experimental cultivation of cotton in Coimbatore and Tinnevely, but also of the mercantile operations into which they have latterly merged, in purchasing and shipping cotton, the produce of those districts; and he directs, accordingly, that the following arrangements be adopted to give effect to that object.

2. In regard to the operations in the Tinnevely district, the Governor in Council desires that as Mr. Finnie's engagements have been made for two years certain from the 16th October 1847, he should remain in Tinnevely until the expiration of that time, and consider himself wholly and unqualifiedly under the orders of the Officiating Collector. Mr. Elton will inform Mr. Finnie that it is the desire of Government he should give his whole time and attention exclusively to instructing the natives in the practical use of the gins, presses, churkas, thrashers, and other implements required in the cleaning and preparation of the cotton, but that he should not interfere with the cultivation of the plant (whether American or Indian) further than offering his advice when asked for; because if he tenders his advice, and the crop should afterwards from any cause unfortunately fail, it will, however erroneously, be attributed to his innovations.

3. Mr. Finnie has already, it is believed, one assistant attached to him, and Dr. Wight will now be instructed to transfer immediately to the collectorate of Tinnevely, for the purpose of being placed under Mr. Finnie's tuition, one half of the East Indian lads at present with him. These lads having already obtained a certain degree of information and knowledge of the work required of them, the Governor in Council entertains the hope, that with Mr. Elton's supervision, and Mr. Finnie's valuable practical instruction, they will be able to take charge of all the gins and instruments above alluded to (including a part of those which are on their way from England) by the period which it is proposed to fix for Mr. Finnie's withdrawal from the public service.

4. Mr. Finnie will be directed to desist immediately from purchasing any more cotton on behalf of Government, and to close his accounts, and break up whatever establishment he may have entertained for that duty. He will clearly understand that all his proceedings are henceforward, during his residence in Tinnevely, to be conducted under the authority of the Officiating Collector, and that any representations which he may wish to offer on the subject of cotton must be addressed through that officer for the orders of Government.

5. In regard to the Coimbatore experimental farms, the Governor in Council desires that Dr. Wight will also desist from making further purchases of cotton on behalf of Government, that he will discharge at once all establishments which have hitherto been employed for the experimental farms, and place Messrs. Sherman and Cuxton, and the other half of the East Indian boys, at the disposal of the officiating principal collector of Coimbatore, who will assign to all and each of them their proper posts and duties.

6. The gin-houses at Coimbatore and Sevacausey will be taken charge of by the Collectors of the respective districts: in the latter after Mr. Finnie's departure; and the Governor in Council desires that for a season at least the ryots should be allowed the use of them gratis, as well as of all other agricultural and cotton-cleaning instruments, which have been heretofore so liberally supplied by the Honourable Court of Directors. This system is, however, not intended to be permanent, and the collectors are expected hereafter to report to Government when in their estimation the ryots may be required to pay some trifling sum for the use of the Government instruments and apparatus.

7. The Governor in Council will be prepared to consider favourably, and recommend to the proper quarter, such moderate increase to the present salaries of Messrs. Sherman and Cuxton, as well as to the allowances of the East Indian lads, as the collectors may severally see fit to recommend, so soon as the new arrangements are carried into execution.

8. The Governor in Council desires that on the departure of Mr. Finnie either Mr. Sher-

Rev. Dis., No. 3
of 1848.

man or Mr. Cuxton may be transferred from Coimbatore to Tinnevely; but wherever they may be eventually stationed, they will understand it to be their chief, if not sole, occupation in both districts to watch over and superintend the proceedings of the East Indian lads, who, as before observed, will be fully qualified to be put in charge of the cotton-cleaning machines and implements of all kinds.

9. The revenue authorities will be careful to guard against any of their assistants, or others who may be employed on the duties above indicated, receiving on any pretence the smallest private gratification or present from persons, whether the actual growers of the cotton or the intermediate brokers, for work done with the public machinery, and at the Government gin or press-houses.

10. The Governor in Council is surprised to find from the memorandum of the Revenue Secretary to Government, that Dr. Wight, who not long ago strongly urged a remission of half the land rent, is now paying for ground to be planted with cotton, to the ryots from whom he has obtained it, an additional rent equal in some cases to half, and in others to double the demand of Government. The people can scarcely be expected to comprehend the motive for this arrangement, which must, it would seem, have the effect of deterring rather than encouraging them from entering into a competition with Government.

11. It is the desire of Government that the officiating principal collector of Coimbatore, aided by Messrs. Sherman, Cuxton, and the East Indian lads, should attend to all those parts of Dr. Wight's contemplated measures for the present season that cannot be laid aside, or that the natives cannot be induced to undertake on their own behalf. Perhaps it will be desirable, and the collector is accordingly authorised, to purchase all cotton at a favourable rate grown on the land, and to have it cleaned and shipped.

12. If the Government understand the matter rightly, there would appear to be nothing on the ground at this season, and in this case there would seem to be no difficulty in relinquishing the land at once, and dispensing with the farming establishments, when all that will remain to be done will be to prepare the cotton of the last crop, and dispatch it for shipment. Contracts for produce already entered into will be fulfilled, and the cotton prepared for shipment as usual, the establishments being afterwards broken up. Dr. Wight will fix as early a period as may be compatible with the engagements which have been entered into by him with the ryots of Coimbatore, for finally closing his accounts and all concern with the experiments, and will in the interim give his advice and assistance to the officiating principal collector, in order to carrying out the arrangements now contemplated.

13. Dr. Wight will report when he has fulfilled the orders now given him, and the officiating principal collector will inform the Government as early as possible of the arrangements he has made, and the extent to which Dr. Wight's engagements render it necessary for him to carry on the farming and ginning operations this season.

14. Both Dr. Wight and Mr. Finnie will be requested to bring to the notice of the Collector of the district any points which have escaped the attention of Government, and now require their specific orders.

15. The account sales referred to in paras. 8 and 9 of the Honourable Court's despatch will be transmitted to the Accountant-general, to enable him to make the necessary adjustment in his accounts.

16. Under the arrangements now ordered to be carried into effect, the Governor in Council considers it unnecessary to notice the correspondence between Dr. Wight and Mr. Finnie, which was laid before Government by the former officer in his letters of the 21st December 1848, and 31st January 1849.

17. The Governor in Council is not prepared to admit the correctness of the charge made by the Manchester Commercial Association in their letter to the Honourable Court, dated 1st March 1848, a copy of which was received with the Revenue Despatch, No. 8 of that year, that "had the same amount of encouragement been afforded in Coimbatore as in Dharwar, far greater quantities would ere this have been produced." He observes, that the Honourable Court and the Madras Government have on all occasions done whatever was pointed out or asked to advance the object in view, and is of opinion that the merchants of Manchester must blame themselves for any inadequacy of the future supply, unless they come forward, as has been repeatedly urged on them, and apply their own agents and capital to the task in which Government have set them an example, and pointed out according to their own showing so easy a course.

Rev. Dis., No. 8
of 1848.

18. Since the date of the despatch was finally disposed of,* the Honourable Court have shipped a large supply of cotton-seed and cottage saw-gins, and have furnished besides a report from Dr. Royle on the gins and memorandum from Mr. Petrie as to the setting and best mode of working them, all which have been ordered to be furnished to the Coimbatore cotton farms. Dr. Royle's report has also been printed at the Fort St. George Gazette press for distribution to the revenue officers in the provinces, and 75 of the 80 copies so struck

* Cons., 14th November 1848. No. 62; Diary 1st May 1849, No. 33; Diary 15th May 1849, No. 468. Ten casks containing 30 bushels of Sea Island cotton seed. Twelve cases, each containing two cottage saw-gins.

II.
Madras.

struck off will now be transmitted to the Board of Revenue for that purpose, together with the Honourable Court's despatches, No. 2 and 3 of 1849, dated 7th and 14th March, as well as the orders of Government, dated 28th April 1849, No. 431.

19. A copy of the Honourable Court's despatch of the 4th July 1848, and of these resolutions, will be furnished to Dr. Wight for his information and guidance, and a copy will also be sent to the Board of Revenue, in view to their communicating the same to the collectors of Coimbatore and Tinnevely, and through the latter officer to Mr. Finnie.

20. The Board of Revenue will understand that, notwithstanding the orders now issued for the discontinuance of the expensive cotton farming experiments and mercantile operations in the Coimbatore and Tinnevely districts, it is still the desire of Government, in pursuance of the resolution of the 5th December 1848, No. 1342, that the local officers should continue steadily to give their attention to the extension and improvement of the indigenous cotton, and to all the points indicated in that resolution.

21. The attention of the Board will also be requested to the observations and suggestions offered by the Honourable Court in the despatches now communicated to them, in order that, with reference to the resolution of the 5th December 1848, No. 1342, they will communicate such portions to the officers in the provinces, and issue such further instructions as they may deem useful for keeping up an interest in the object in view.

(signed) H. C. Montgomery,
Secretary to Government,

From Surgeon R. Wight, Superintendent Cotton Farms, Coimbatore, to Sir H. C. Montgomery, Bart., Secretary to Government, Fort St. George.

SIR,

1. I HAVE the honour to acknowledge the receipt of Minutes of Consultation, No. 544, under date 1st June 1849, transmitting copy of despatch of the Honourable Court of Directors, No. 11 of 1848, dated 4th July.

2. As I am in my official capacity severely, and I think unjustly, reflected upon in the 10th paragraph, I trust I may be permitted to offer some explanation.

3. In that paragraph it is remarked, "The Governor in Council is surprised to find, from the memorandum of the Revenue Secretary to Government, that Dr. Wight, who not long ago strongly urged a remission of half the land rent, is now paying for ground to be planted with cotton to the ryots, from whom he has obtained it, an additional rent equal in some cases to half, in others to double the demand of Government," &c. On this statement I beg most respectfully to submit, that the two facts here coupled together have not the slightest connexion with each other.

4. Several years ago I certainly did urge the remission of half the Government tax on all land cultivated with American cotton, not on the supposition that such remission was necessary to make it a remunerating crop, but simply as a stimulus or inducement to the ryots to take it in hand, which they were then, and still seem, unwilling to do. Before I had any connexion with the farms, the system now in use of the Government renting lands for the experiment, or, in other words, paying compensation to the puttahdars for the temporary use of their lands, was established. This practice has been unavoidably continued, the puttahdars in this district being virtually, if not actually, the proprietors of the soil, of which, so long as they pay their puttahs, they cannot be deprived. Such, as I am told, being the nature of land tenures in Coimbatore, and land being indispensable towards carrying on the experiment, we had no alternative but to hire, or, in other words, pay compensation in lieu of the profits the proprietor could obtain from it by the application of his own industry.

5. When procurable I have invariably, for the purpose of saving compensation, given the preference to Government waste land, the rent of which was paid by the farms; but when that could not be obtained in sufficient quantity or of suitable quality, then, and then only, recourse was had to the puttahdar.

6. The amount of compensation was fixed before I was appointed, at what was called "full compensation," that is, the Government tax was debited to the farms, and the puttahdar received as rent, for the temporary use of his land, a sum of money equal in amount to the tax. On the removal of the farms from the immediate vicinity of Coimbatore, I succeeded in getting the rent fixed at what is here called "half compensation" (half the tax) for poonjah land, but full for nunjah or garden land. In no case, as far as I am aware, has double been paid.

7. With respect to this paragraph, as well as some other portions of this minute, I feel that I cannot express in adequate terms my regret at not being favoured with an audience of the Right Honourable the Governor during my recent visit to Madras, as I feel certain I could have clearly explained several points on which his Honour in Council seems somewhat imperfectly informed. To these I cannot here more fully advert, as my doing so might be considered intrusive, but as my remaining altogether silent under existing circumstances may subsequently be attributed to me as a fault, or even dereliction of duty, I trust I shall be excused for soliciting attention to the following, in the hope that their consideration

Cons. 5 December
1848, No. 25 to
28.

sideration may lead to some slight, but not on that account unimportant modifications of the orders now issued.

8. In the 12th para. it is said, "If the Government understand the matter rightly, there would appear to be nothing on the ground at this season, and in that case there would be no difficulty in relinquishing the land at once." The Government is correctly informed of the fact here stated, there being nothing on the ground at this season, but the correctness of the inference may, I think, be made a subject for further consideration.

9. The lands in question have all been in our possession several months, and are engaged and compensation paid on the puttah lands until the 1st of May 1850. They have all, moreover, with the exception of a few small patches, been repeatedly ploughed, and are ready for the reception of the seed next month. Hence I believe I do not over-estimate the outlay in saying that from two-thirds to three-quarters of the expense of the crop has been already incurred, and that unless it is grown the whole sum will be lost; whereas, by keeping our establishment together until about the end of the year and growing the crop, the whole will be recovered.

10. The pecuniary loss which will otherwise be sustained, though considerable, I consider of minor importance in comparison with the injurious effects on the agricultural community likely to result from the abrupt breaking up of an establishment which has been in operation for several years, and that at the very commencement of the sowing season, when it is well known to them nearly all the expenses of the crop have been incurred. In place, therefore, of at once breaking up the establishment at a moment when the proximity of the new season renders it impossible for others to step in to occupy our place, I beg leave to suggest for the consideration of Government, that it be made generally known that this is positively the last crop to be grown on the Government account. In this way time will be allowed for others to arrange to take our place, for the merchants to establish agencies, or it may be for the formation of a mercantile company to carry on the works on their present plan, but on a much larger scale; and lastly, by adopting this course our present most excellent and thoroughly acclimated stock of seed will be wholly preserved in place of in great part lost.

11. Adverting to the remark, para. 17th, that the Right Honourable the Governor in Council "is of opinion that the merchants of Manchester must blame themselves for any inadequacy of the future supply, unless they come forward, as has been repeatedly urged on them, and apply their own agents and capital to the work," I think it probable his Honour in Council is not aware of the fact, that when overtaken by the late great commercial crisis, proposals were actually in circulation among the mercantile body there for the formation of an Indian cotton company, whose object was to negotiate for the transfer to them of the whole experimental establishment, with a view to their ultimately engaging in the cotton trade of Southern India on the largest scale.

12. The commercial difficulties which interfered to prevent the immediate execution of the plan having passed away, and the principles on which the cultivation of the American cotton plant should be conducted being now much better understood, it occurs to me, that if the opportunity of doing so was accorded, while the whole of the machinery for carrying on its operations is in the most efficient state, that such a company would now be speedily formed, and in that case, not otherwise, the Government will be enabled to dispose of the property appertaining to the establishment at a fair valuation. If the mercantile body fail in forming a "cotton company," the intervening crop will much more than pay for the cost of keeping the establishment together pending the few months required to obtain an answer, and at the same time will, I believe, cover the preparatory expenses which have been already incurred on its account.

13. There is now attached to the farms four East Indian lads. One of these appertains to the gin-house, the rest to the farms. Of the latter, one can be at once spared to place himself under the instructions of Mr. Finnie, even supposing the farms kept on for the season. Mr. Cuxton, in like manner, can easily be spared to relieve Mr. Finnie, now that the purchase of cotton is stopped, as the gin-house East Indian can conduct under my superintendence the ginning of our crop if grown. In the meantime all the parties are warned to hold themselves in readiness for an immediate move.

14. Of the cotton seed mentioned in the 18th para. a small portion only has been sown, partly to ascertain its quality, but principally in the hope of preserving among us that valuable variety in the event of its proving for the most part bad. It was sown, as regards the Coimbatore climate, at the most unfavourable season of the year, and the crop will be small though the seed was good and the kind prolific. It being principally adapted for coast culture, it is my intention to make over a considerable portion to Messrs. Line & Co., who have extensive plantations on the coast near Vihar.

15. The gins noticed in the same para. have not yet arrived. All our last crop except about 1,000 lbs. is already ginned, and partly on its way to England. I can scarcely, therefore, at this time have an opportunity of sufficiently trying and exhibiting their properties to the natives here, but I shall do so to the utmost extent in my power.

II.
Madras.

16. It only remains for me to add, that I shall take the liberty of waiting a reply to this communication before I take any steps towards breaking up this establishment.

Coimbatore, 11 June 1849.

(signed) R. Wight, Surgeon,
Superintendent Cotton Farms.

(signed) H. C. Montgomery

REVENUE DEPARTMENT.

(No. 607.)
EXTRACT from the Minutes of Consultation, under date the 29th June 1849.

READ the following letter from Surgeon R. Wight, Superintendent Cotton Farms.

Explains several points connected with the breaking up of the Cotton Farms Establishment.
[Here enter 11th June 1849.]

THE Right Honourable the Governor in Council has fully considered Dr. Wight's representation, but is still of opinion that the whole system of cotton farms should be forthwith discontinued, as far as possible; and that what must necessarily be kept up for this season, in consequence of the engagements which Dr. Wight has undertaken, should be, as already directed, conducted under the superintendence and orders of the acting principal collector, who will have attached to him certain assistants of the experimental establishment, and thus be enabled to carry out the views of Government, recorded on the 1st instant.

(signed) H. C. Montgomery,
Secretary to Government.
(No. 8.)
From E. B. Thomas, Esq., Acting Principal Collector of Coimbatore, to the Secretary to Government in the Revenue Department, Fort St. George.

Sir,

With reference to the usual indent for funds from Dr. Wight (and with which I have at present complied) I beg the favour of your informing me to what extent I should continue to supply cash for the cotton experiment; the orders of Government for winding up and closing the establishment have, I believe, been issued; but as no orders, either from Government or from the Board of Revenue, have reached me, I feel in doubt as to how far I should continue issues to Dr. Wight.

I have, &c.

Ootercamund, 25 June 1849.

(signed) E. B. Thomas,
Acting Principal Collector.

REVENUE DEPARTMENT.

(No. 612.)

EXTRACT from the Minutes of Consultation, under date 30th June 1849.

READ the following letter from the Acting Principal Collector of Coimbatore:

Requests to be informed up to what extent the supply of funds to the experimental cotton farm should be continued, as it is supposed that the Government has ordered for closing up the establishment.

[Here enter 25th June 1849, No. 8.]

1. THE Right Honourable the Governor in Council observes that the orders of Government on the subject of the cotton farms and experiments, dated the 1st June, were dispatched on the 2d instant to the Board of Revenue for communication to the acting principal collector of Coimbatore, and he is surprised to learn they were not so communicated by the 25th June, the date of Mr. Thomas's letter. The Board will now be so good as to expedite the transmission of the instructions of Government to the acting principal collector, with their own proceedings thereon, without delay. In the meantime, copy of the Minutes of Consultation of the 1st June is dispatched direct to the acting principal collector, as well as Extract Minutes of Consultation, under date the 29th June, containing the further orders of Government after consideration of Dr. Wight's letter of the 11th idem. By these papers Mr. Thomas will perceive that it is not intended to continue the farms under Dr. Wight's superintendence, and therefore no further disbursements should be made to that officer from this date.

2. Sanction

2. Sanction was given on the 29th instant to the superintendent for his accounts for May, and as Dr. Wight must have received the orders of Government of the 1st of June early in the month, the Governor in Council presumes that none but the absolutely necessary current expenses of the establishment have been incurred by him since.

(signed) *H. C. Montgomery,*
Secretary to Government.

From Surgeon *R. Wight*, Superintendent Cotton Farms, Coimbatore, to *Sir H. C. Montgomery, Bart.,* Secretary to Government, Fort St. George.

Sir,

1. ADVERTING to para. 2 of Minutes of Consultation, No. 814, under date 27th July, in which an apparent discrepancy between paras. 4 and 16 of my letter of the 2d June is indicated, I beg most respectfully to suggest, for the consideration of the Right Hon. the Governor in Council, that the discrepancy is only apparent, not real. The rains of the north-east monsoon of 1846 nearly failed throughout the greater part of the district. Up to the end of that year the cotton trade had been so active that we found it difficult to obtain, at even high prices, cotton enough to keep our gins employed,

2. In February we commenced ginning the farm crop, which kept us employed until April 1847, hence we made no purchases during February and March, and by that time it was ascertained that the crop of that season had fallen very much short of the average. This failure, as usual on such occasions, raised the prices, and the petty merchants would not buy at the high rates demanded beyond what they had previously contracted to purchase, and made advances for. I, however, was constrained to submit to them or sustain the heavier loss of keeping the whole of the ginning establishment idle; and made my first purchases in April, at the high figure of *Rs. 15. 8.* the candy of 500 lbs., for superior qualities, however, remaining from the preceding season;—the inferior samples graduating downwards as low as 14 rupees the candy. For the subsequent three months the maxima and minima were, respectively, in May *Rs. 15. 6.* and *Rs. 13.,* in June *Rs. 14. 12.* and *Rs. 10. 4.,* in July *Rs. 14. 8.* and *Rs. 13. 4.* These prices were for the most part paid direct to the ryots, who, urgently solicitous for money to enable them to pay their kist and commence cultivating, the season being favourable, would doubtless have submitted to a reduction, there being no other buyers, had I stood out for it. But viewing in such a case that course as objectionable in every point of view, I preferred paying such prices as the lightness of the crops seemed fairly to demand. By this we lost a little, but hundreds of ryots, and, I believe, the revenue, were saved from serious injury and loss. All parties seem to have been benefited by this arrangement; the ryots obtained better prices than the merchants could, as a speculation, have ventured to give; we were brought into immediate contact with them, and have ever since purchased cheaper than we could have done at second-hand from petty merchants and middlemen, while the merchants have not been tempted to vest capital in an article for which for the last 12 or 15 months there has been little or no demand, and for which there is now no demand, though this is usually the active season, viz., about the time the breaking up of the south-west monsoon opens the road to the west coast. The existence of this want of demand is further shown by the fact of our now purchasing largely at the low figure of from *Rs. 8. 12.* to *Rs. 9.* per candy.

3. These statements will, I trust, satisfy his Honour in Council that the discrepancy adverted to is only apparent; the mercantile spring purchases being principally made on speculation, to meet the autumnal demand, only took place that season to a limited extent, owing to the high prices demanded by the growers; and the usual autumnal ones were prevented by the home monetary crisis. My high-priced purchases were, in a manner, forced upon me as an economical arrangement, it being cheaper to keep the ginning establishment at work on dear cotton than altogether idle waiting until the prices fall, leaving altogether out of consideration the fiscal advantage obtained through the seasonable circulation of upwards of 10,000 rupees during a season of much distress among several hundreds of families, many of whom but for that opportune supply could scarcely have had the means of re-commencing cultivation.

4. In the hope of throwing some further light on the state of the cotton trade in this district, I subjoin a table, showing the extent of our monthly purchases of cotton for the years 1847-48; also the monthly maximum, minimum, and average price per candy (500 lbs.); the total quantity of seed cotton purchased, and the amount paid for it. Lastly, the number of bales of cotton wool obtained from it; the price per bale (200 lbs.), and the prime cost per pound in Coimbatore; this last reduced to English currency; the charges per bale for ginning, baling, and delivering in England, after deducting *Rs. 9. 8.* each (the sum realised by the sale of the seed), the cost per bale delivered in England; and, lastly, the price there per pound in English currency. From this table it will be seen that the cotton is rather high priced, but it is good; and judging from the high prices our cotton realised last year, there is every reason to believe it will still prove a good remittance.

II.
Madras.

5. Trusting that this Table, which shows the fluctuation both of supply and price of cotton in the Coimbatore market during the last year, may not prove altogether useless.

I have, &c.
(signed) *Robert Wight, Surgeon,*

Coimbatore, 20 August 1848. Superintendent Cotton Farms.

MONTHS.	Total Lbs. Purchased.	Cost.	Maximum.	Minimum.	Average per Candy of 500 lbs.
	Lbs.	Rs.	Rs. a.	Rs. a.	Rs. a.
1847: January	29,475	818	14 8	14 6	13 14
April	93,018	2,697	15 8	14	14 8
May	1,79,980	5,060	15 2	13	14
June	52,076	1,435	14 12	10 4	12 10
July	51,823	1,399	14 8	13 4	12 8
August	87,629	2,302	14 6	12 2	13 2
September	48,080	1,139	14 2	12 8	13 2
October	7,246	185	13 12	12 4	12 12
November	45,310	1,137	13 8	11 2	12 6
December	86,161	2,125	13	11	12 4
1848: January	48,481	1,154	12 14	11 8	11 14
February	50,609	1,222	13	12	12
March	80,285	1,961	13	12 4	12 2
	8,55,178	22,624			

Number of Bales.	Cost per Bale.	Prime Cost in Coimbatore per Lb.	Charges per Bale in Transmission to England, deducting Rs. 9 8 per Bale on account of Seed sold.	Price per Bale delivered in England.	Cost, delivered in England, per Lb.
	Rs. a. p.	£. s. d.	Rs. a. p.	Rs. a. p.	£. s. d.
584	38 12	3	8 8	47 4	32 10

(signed) *R. W.*

(No. 960.)

ORDERED, to be brought to the notice of the Honourable Court of Directors, with reference to Extract Minutes of Consultation, 27th July 1848, reported in Letter No. 56, dated 28th July 1848.

(signed) *H. C. Montgomery,*
Fort St. George, 5 September 1848. Secretary to Government.

From Surgeon *R. Wight*, Superintendent Cotton Farms, Coimbatore, to Sir *H. C. Montgomery, Bart.*, Secretary to Government, Fort St. George.

Sir,

ADVERTING to the remark contained in the 30th paragraph of my report dated 26th January 1849, I have now the honour to forward a draft of the circular alluded to, which I trust will be found to merit the approbation of the Right Honourable the Governor in Council.

Want of information on certain points, which I had to wait for, has caused some delay in its completion; but I believe it will still be found in good time, if circumstances permit of its being speedily put in circulation.

From 60 to 70 copies will I think suffice. As it seems desirable that the whole should be comprised in a single sheet, I beg leave to suggest that a smaller type be used than on the former occasion, and if need be, a somewhat wider page.

In the present state of my information, I could not venture to enlarge on that important branch of the subject, irrigation, as a means of securing certain returns; I trust to be able to do so next season, when the results of the trials now in progress are known.

(signed) *Robt. Wight, Surgeon,*
Coimbatore, 20 March 1849. Superintendent Cotton Farms.

(No. 342.)

RESOLVED, That 80 copies of the circular received with the foregoing letter be printed at the Fort St. George Gazette press, and that 60 copies be furnished to Dr. Wight, the remainder being reserved for distribution to the Governments in India, and to the Honourable Court of Directors.

The attention of the superintendent of the press will be directed to the suggestion in para. 3, of Dr. Wight's letter.

(signed)

H. C. Montgomery,
Secretary to Government.

Fort St. George, 5 April 1849.

CIRCULAR.

To _____

Sir,

Coimbatore, 20 March 1849.

1. In my circular under date 6 March 1848, on the subject of cultivating American cotton in India, I had the honour to submit some remarks on what was then by some considered an insurmountable obstacle to success, viz. the excessive heat of the climate, and solicited aid towards having the question solved; by submitting it to the test of experiment over a wide extent of country, by sowing portions of seed with the first rains following the hot season, and communicating the result. I further stated, that my own impression with regard to the most suitable sowing season had reference rather to securing a suitable season for harvesting the crop, than to the heat of the weather while growing.

2. The replies to my circular have not been so numerous as I expected, but still the information thence obtained, added to that derived from my own previous experience, and much drawn from our recent experiments and from other sources, is, I believe, sufficient to enable me to suggest some general rules for our future guidance, of easy application to practice, and such as, I trust, will be found to insure as certain and uniform success in growing American cotton, as now attends the cultivation of the indigenous plant, with the advantage of producing a raw material yielding about 8 per cent. more of the marketable article (clean cotton), and that again returning in the English market a higher price by at least 20 per cent., making together 30 per cent. higher profits to the cultivator, provided he obtains his fair share from the first purchaser. Native seed cotton (Purthee) cleaned by the American gin, yields between 21 and 22 per cent. of cotton (Pungee) to seed; American between 29 and 30. When "good fair" native cotton is selling in Liverpool for 4d., New Orleans of the same denomination fetches from 5d. to 5½d. (In December 1848 they were respectively 3¼d. to 3½d. and 4½d. to 4¾d.) These data I mention as showing the advantage attending the cultivation of American cotton.

3. In my last circular I stated that it had been confidently asserted by Mr. Mercer, an intelligent American planter, that the supply of Indian grown American cotton must necessarily be limited, as it could only be grown in certain localities favoured by having a very "mild" climate. By this term he means a cool climate, and therefore considers the plains of India generally unfit for its production, as being much too hot for the culture of that species of cotton. From the first, taught by much previous observation, I was left to question the soundness of that doctrine. I am now, I rejoice to say, in a position not merely to prove it erroneous, but to show that we have more to fear from deficiency than from excess of heat; or in other words, that the climate of the Carnatic during the cold months, our cotton-growing season, is actually colder than the summer of Mississippi, their cotton-growing season. They cultivate from April to November, we from September until April. The following Table exhibits the mean temperature of Vera Cruz 19°12 north lat. (the native country of Mexican cotton), of Mobile in Alabama, 30°12 north lat., of Natchez in Mississippi, and Madras 13°4 north lat. during these two periods.

TABLE of monthly mean temperature during the cotton-growing seasons in Vera Cruz, Mississippi, and the Carnatic.

	April.	May.	June.	July.	August.	September.	October.	November.	December.
Vera Cruz	77.18	80.42	81.86	81.50	82.10	80.96	78.41	75.38	71.6
Mobile	70.00	76.36	82.17	82.41	82.73	75.94	69.97	61.50	55.50
Natchez	69.93	72.72	80.62	81.78	80.13	74.99	64.58	55.23	49.09
Madras	August.	September.	October.	November.	December.	January.	February.	March.	April.
	84.6	83.7	82.2	78.9	76.3	75.5	77.7	80.8	83.7

4. This Table at once disposes of the assumption that excessive heat stands in our way, by showing that the main impediment to our success is not that (our crops being matured under a mean temperature lower by several degrees than those of America), but to our having to contend with a diminishing in place of a rising temperature during the growing season.

II.
Madras.

5. Mr. Finnie, another American cotton planter now in the service, has started a new difficulty. He asserts that the climate is much too dry, and that we need not expect to succeed in the culture of American cotton, unless in such places as partake of the rains of both monsoons. This opinion I am now also enabled to prove erroneous on nearly equally conclusive data; last year, and again this year, my sowings commenced before the S.W. monsoon set in, namely, in April and May. The monsoon followed in June and July; my harvest was in active progress in October when the northern rains commenced: all the crop still on the ground, and nearly ready to open, amounting to much the larger half, was injured or altogether lost, while fields sown between the 20th July and 10th August, and which came into pick in November after the rains, yielded good crops.

6. The following Table, exhibiting the monthly mean falls of rain in Florida and Madras, for the same series of months as above, further tends to confirm my view, by showing that, as compared with Florida, a cotton-growing country, our climate is the more humid of the two.

	April	May	June	July	August	September	October	November	December	Total
Florida	9.69	6.34	2.39	2.84	3.30	4.35	3.33	4.49	2.41	26.16
Madras	15.24	4.76	10.00	12.42	3.25	1.33	0.23	0.36	0.63	38.22

7. These Tables leave no room to doubt that it is neither excessive heat nor excessive drought with which we have to contend in the naturalization of the American cotton plant in India, but with a diminishing in place of a rising temperature during the cultivating season; in a single word, cold, not heat, is our enemy. This unlooked-for fact being at length clearly ascertained, the question immediately suggests itself, how is this to be met?

8. The course that suggests itself to me is simple, and I believe will be found effective. We learn from the very correct meteorological tables of Madras, that the Madras mean temperature at the beginning of September is 84°, and that at the end of October it is still as high as 81°. If the sowing is effected between the middle of August and middle of September, the plant will be well grown and sufficiently strong to bear the cold weather of November and December, while there is reason to believe the cold of these months will only so far retard the maturation of the crop as to prevent its coming to perfect maturity before the middle of January, when, though the nights are cold, causing a low mean temperature, the days are bright, warm, and dry,* well suited to commencing the harvest, which will last through three or four months.

9. By following this course, as closely as the course of the seasons will permit, it is my firm belief there is scarcely a field on which water does not lodge so as to become flooded after every fall of rain, in any part of the Carnatic (watered by the north-east monsoon), on which, with due attention to agricultural management, Mexican cotton may not be as successfully grown as the indigenous now is. Soils as well as seasons vary; some will be found more, some less productive, and a few, where the plant will not thrive under any treatment; but such cases do not invalidate the correctness of the general principle as regards the fitness of our climate for its culture.

10. Before quitting the subject of heat and cold, I may as well adduce an example of each: Mr. J. Bird, sub-collector of Tanjore, had some seed sown the end of April or beginning of May, which vegetated favourably, bore unharmed the hot land winds of June, and was in crop in September. My trials in Coimbatore are nearly equally conclusive. From Mysore Mr. Meppen writes me that he had planted in two places, the one Chickamogloor, enjoying a cool climate, the other, Cuddoor, a warm one. Of the result he says, "the climate of Chickamogloor is mild, almost similar to Dharwar, yet the plants there did not thrive or bear so well as here, but like those of Dharwar were small and produced but little; the quality of cotton also I think inferior to that of Cuddoor [it is so.] Calculating from the result of this experiment, an English acre will produce nearly 850 lbs." His field was sown two feet between the rows, and 18 inches, from plant to plant, in the rows. The plants rose to from 20 to 30 inches, and a month after picking commenced, presented an average of about seven pods per plant, a low average for plants of that size; but doubtless there were many young ones not reckoned in that average.

11. Hitherto I have confined my remarks to the Carnatic under the influence of the north-east monsoon. I shall now say a few words bearing on those parts of India partaking more largely of the south-west one.

12. I have not at hand satisfactory registers of the rain, but the following approximations may

* The mean temperature of January, at sun-rise is 72°—at noon 81°.

may serve the purpose of enabling me to explain the general principles which ought to guide us.

	June.	July.	August.	September.	October.	November.	December.	January.	February.
Calcutta 7 years.	11-46	12-14	16-23	7-70	4-94	0-13	0-81	0-50	0-25
Bombay Almanac.	22-92	25-14	19-64	12-64	1-64				
Trevandrum 4 years.	16-4	8-14	4-2	1-64	1-64				0-05
Colombo	2-3	16-7	9-5	8-2	7-1		18-6	1-6	0-4

13. Assuming that these are all approximations to the averages of the different stations named, it appears that the growing season would, in the two first, continue to the end of October; in Trevandrum until the end of November; in Ceylon, to the end of December. From the date of sowing until the crop is in a state of maturity and picking fully established, requires from 16 to 20 weeks. At this rate, in Bengal and Bombay, advantage should be taken of occasional breaks in the weather to sow between the middle of July and middle of August; in Trevandrum, between the middle of August and middle of September; and in Ceylon in September. The weather is still warm enough to promote rapid growth, and, ere the cold nights of November commenced, the plants would have attained their full size, with strength enough to bear the cold if supported by adequate warmth and bright sunshine during the day, it being now a well-ascertained fact that tropical plants are capable of enduring much nocturnal cold, provided they have plenty of light and heat during the day.

14. These suggestions are of course to be understood as mere hints for others to work upon, as my position here prevents my acquiring accurate information on this branch of the subject.

15. A reference to the first of the preceding Tables will show that in America they are enabled in their cultivation to follow the natural course of the seasons, having the mild spring for sowing, the warmer and showery summer for their growing season, and the clear dry autumn for harvesting the crop. Here the case is altogether different; the spring months of Southern India are dry and parched with intense heat, the summer ones cooled and refreshed with occasional showers, and the autumnal ones deluged with rain and quite unfit for harvest operations. To adapt the American cotton plant to this course of the seasons is indispensable to success; for this purpose two methods suggest themselves.

1st. The one already sketched, that of employing the earlier weeks of the autumnal period as our spring, the latter ones and part of winter as our summer, and the conclusion of winter and part of spring as our autumn: or,

2d. To render ourselves comparatively independent of the seasons, by having, as in Egypt, recourse to irrigation, and thereby securing for the growing plant a rising in place of a falling range of temperature, by sowing in October or November, according to the season.

16. This idea suggested itself while studying the American meteorological tables, and shortly after I succeeded in obtaining a small piece of ground, about an acre, with a well attached. It was sown the end of January; on the 4th February the young plants began to show themselves; on the 10th March many of them were upwards of a foot high, all very healthy and already showing abundance of "forms," or coming flowers, and that too with the thermometer in the shade daily above 90°, once or twice 96°, proving clearly that high temperature, when there is sufficient moisture in the soil, is not injurious to Mexican cotton.

17. This experiment will, I anticipate, be only partially successful, as we may in the ordinary course of the seasons expect cloudy weather and rain in May, which is adverse to the perfect maturation of the crop; but already it goes far towards establishing the principle for which it was undertaken, and had the sowing been in October, when our rains ceased, would have proved most successful, as it would now in that case have been in full crop.

18. Fortunately this is not the only experiment of this kind in progress. While drafting this paper, I received from Captain Lawford, civil engineer, 6th division, a note informing me that he had engaged in a similar experiment some months ago in the hope of being able to show the natives of Tanjore that cotton so cultivated would yield at least as profitable returns as rice, which he states is there hardly worth planting. He says, "I hope you will approve of the plan of irrigating all cotton, as it will in a great measure render the crop independent of season. Since I sowed the seed received from you in October, we have had scarcely any rain, but I have a splendid crop in good soil where the plants are four feet high and the pods very large." This I consider a most valuable experiment, and will I trust find many imitators, especially in those parts of the country where the rains are scanty and uncertain. The seed was sown in November, the picking commenced about the middle of February, and now (15th March) the plants are in full growth, covered with crop in all stages from "forms" up to open pods.

19. Up to this time we have had no experience in this mode of cultivating cotton, but I would suggest as a precaution, that water should be rather sparingly supplied; that little

II,
Madras.

or none should be given from the time the picking commences, or rather perhaps for some time before, as the plant when grown in rich moist soil is apt to become too luxuriant, in which case the produce is not properly ripened. If in active and luxuriant growth when the crop is ripening, the pod does not open at the proper time; the cotton being highly hygrometric absorbs moisture from the enclosing capsule, and gets spoiled before it bursts. The very bright warm weather of March, April and May, the harvest months of irrigated cotton will do much towards counteracting this evil, but not altogether if the plants are kept freely watered and growing.

20. Having thus briefly, but I trust clearly, explained the principles which ought to guide us in the cultivation of American cotton in India, I shall, in conclusion, say a few words on the practical details which demand our attention.

21. The first point relates to the choice of soil, when selection is in our power. The best crops I have yet seen have been obtained from dark brown, very light, sandy loams, mixed with much kunker limestone, a kind of soil easily worked, very permeable to rain, and easily penetrated to a great depth by the roots. Red soils having a large admixture of sand, securing for them the above properties, also answer well and are easily cultivated. The stiffer clayey soils have not answered so well, except in seasons when we have had frequent showers keeping them in an easily workable state, as they are liable to bake and become very hard in dry weather. The black cotton soils were a good deal tried at first, and I now think, rather prematurely condemned as unsuitable for the American plant. Subsequent consideration has led me to some extent to doubt the justice of the verdict, and I would like to be in a more favourable position to test the correctness of the conclusion, by a second trial with our additional practical knowledge and skill.

22. The second point, to which I would call particular attention, is the preparation of the ground for the reception of seed. Too much care cannot be bestowed on this. The land should be well ploughed, the deeper the better, from four to six months before the time for sowing, and allowed to lie fallow. If there is rain in the interval, it should have a second ploughing, so as to keep it thoroughly open and freely exposed to conjoint action of the air and sun, which, while it prevents excessive absorption of heat, greatly promotes fertility, and cleans the land by exposing and killing the roots of such perennial weeds as may be in it; lastly, it should have a final ploughing just before sowing. If sown in drills, according to the American practice, it should, while the plant is still small, be ploughed once or twice between the rows. If broad-cast, this cannot be so conveniently done; the hoe must then suffice. After the third leaf has appeared, the ground is hoed, and the plants thinned out to six or eight inches between them; this will leave enough to allow of considerable destruction during the subsequent ploughing. A second hoeing is always deemed necessary in both American and native practice, when the "Stand" should be further thinned, to from a foot to 18 inches between the plants. If the growth is vigorous, not less than an average distance of 18 inches should be allowed; otherwise, a foot may suffice. In moderately fertile and high and dry lands from $2\frac{1}{2}$ to 3 feet between the rows is enough, but for moist low-lying rich soils five feet is not too much, as in such circumstances the bushes will still fill the ground, it being a very strong growing plant; and unless it has plenty of room the crop blights. So managed, I have seen it produce from 1,000 to 1,100 lbs. per acre; but half of that may be considered a fair crop, which is double the amount of what in this district is considered a good native cotton crop, and yields, owing to the higher percentage of cotton to seed, 100 lbs. more of clean cotton. The labour and care bestowed in cultivation is greater, but the return much more than covers it, even leaving out of consideration the higher value of the article produced, which of itself would afford a compensation, supposing the quantity of seed cotton, weight for weight, was simply the same.

23. The last point to which I would direct attention is that, however promising in appearance, we have never succeeded in obtaining a really good second crop off the same bushes. I would, therefore, always recommend the plan of cultivating the Mexican cotton plant as an annual, and never to sow the same land oftener than every third or fourth year, as it seems a very exhausting crop.

24. In illustration of these views, and to facilitate their application, as well as for the convenience of easy reference, I have appended meteorological tables of several places. That for Madras, as being the one which most concerns us, is for every 10 days throughout the year; the others are monthly. The Madras one is for both temperature and rain, the others for one or other as I could find them.

25. I have only further to add, that I can furnish seed to those requiring it for further experiment, having several thousand pounds available for the purpose. July and August being the time for sowing under both monsoons, there is still ample time for supplying it.

I have, &c.
(signed) Robt. Wight, Surgeon,
Superintendent Cotton Farms.

METEOROLOGICAL REGISTER for Madras, extracted from the Madras Almanack for 1848.

DATE.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	Th.	Rain.	Th.	Rain.	Th.	Rain.	Th.	Rain.	Th.	Rain.	Th.	Rain.	Th.	Rain.	Th.	Rain.	Th.	Rain.	Th.	Rain.	Th.	Rain.	Th.	Rain.
1st to 10th	75.3	0.55	76.8	0.03	79.8	0.02	82.7	0.06	85.9	0.32	88.5	0.34	89.2	1.09	84.6	1.77	84.5	1.40	83.1	2.65	79.7	4.49	77.3	2.23
10th to 20th	75.5	0.53	77.8	0.00	80.7	0.11	83.7	0.08	86.8	0.11	88.4	0.49	85.1	1.21	84.6	1.51	83.4	1.25	82.0	2.43	78.8	5.09	76.1	1.80
20th to 30th	75.9	9.11	78.5	0.01	81.8	0.58	84.7	0.26	87.7	0.65	87.3	0.63	84.8	1.52	81.6	1.48	83.2	1.65	81.1	6.04	78.2	4.55	75.7	0.58
Mean	75.5	1.19	77.7	4	80.8	71	83.7	40	86.8	1.8	87.70	1.46	85.3	3.73	84.6	4.76	83.7	4.00	82.02	11.12	78.9	14.13	76.3	4.61
Max.	86.0	-	87.0	-	90.2	-	94.7	-	99.2	-	98.2	-	95.2	-	92.4	-	92.9	-	91.5	-	87.0	-	84.0	-
Min.	65.0	-	66.0	-	69.7	-	75.4	-	78.5	-	79.4	-	73.5	-	73.4	-	72.3	-	70.6	-	67.6	-	65.8	-

REGISTER of Monthly Mean Temperature for the following Cotton-growing Districts.

	Lat. N.	Long. W.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Mean of Year.
New Orleans, Louisiana	29.58	90.7	56.75	58.39	66.58	72.41	77.26	81.18	82.22	82.12	79.42	69.71	58.71	52.26	69.80
Houston, Texas	31.54	95.56	63.2	60.5	68.7	72.7	85.5	80.1	84.2	81.4	83.5	72.3	62.3	60.0	73.03
St. Augustine, Florida	29.50	81.27	60.73	64.97	67.55	70.06	76.89	81.41	82.81	82.67	80.16	73.83	63.55	60.92	72.13
Savannah, Georgia	32.5	81.10	52.15	53.74	61.19	67.36	73.14	77.89	82.23	82.09	75.96	66.92	57.20	50.50	66.70
Columbia, Carolina	34.0	80.58	37.7	42.9	47.3	62.2	67.3	72.4	76.1	76.5	66.3	53.2	43.7	39.5	57.09
Madras { 10 A. M. }	13.4	80.14	78.9	80.6	84.3	87.3	90.3	89.7	87.0	86.1	86.0	84.2	80.6	79.1	-
Madras { 10 P. M. }	13.4	80.14	75.5	77.0	80.7	83.7	86.1	86.3	85.0	84.3	83.5	81.7	77.8	76.2	-

MONTHLY REGISTER of RAIN.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Florida	1.82	1.34	1.98	1.09	0.34	2.39	2.81	3.30	4.35	3.33	1.49	1.13
Madras, mean of 22 years	1.33	0.23	0.36	0.63	1.03	2.03	3.20	5.24	4.76	10.09	12.43	3.25
Trevandrum, 4 years	.40	.05	2.28	3.04	7.60	16.40	3.14	4.20	5.30	14.97	12.	1.90
Calcutta, mean of 7 years	0.50	0.25	1.18	3.37	5.68	11.46	12.14	16.23	7.70	4.94	0.13	0.81
Coimbatore, 7 years	1.33	.08	1.22	2.30	2.15	.85	.18	.11	.81	6.32	3.0	2.46

{ Between 1822 and 1843,
both inclusive.

Revenue Department, 5th September (No. 12) 1849.

Our Governor in Council at Fort St. George.

Cotton.

1. WE now reply to paras. 1 and 2 of your letter, dated the 30th June last (No. 32), in which you inform us of the arrangements which you have made "for discontinuing not only the experimental culture of cotton in both the Tinnevely and Coimbatore districts which were superintended by Mr. Finnie and Dr. Wight, but also the mercantile operations into which the experiment latterly merged."

2. In a minute, dated the 4th May 1849, Sir Henry Pottinger has recorded at length his view of the results which have followed the measures which have been adopted during the last ten years for improving the cultivation of cotton under your Presidency, and states his conviction that everything has been done "that was either requisite or called for, to give the experimental farms the fairest, fullest, and most liberal trial" adding that in his opinion, "they should be forthwith discontinued," and that "their further existence would be calculated to do great harm to the cause which they were originally intended to promote, by unavoidably leading the natives of the cotton-growing districts to imagine that Government alone have the means or faculty of raising American cotton, or of improving the culture and quality of the indigenous plant."

3. The other members of Council (Messrs. D. Elliott and H. Dickinson) concurred generally in the opinions expressed by the Governor. The Resolution of the 1st June 1849 was accordingly passed by your Government, "in pursuance of the views communicated by the Honourable Court in para. 4 of their despatch dated the 4th July (No. 11) 1848."

4. That Resolution directs that, in consideration of Mr. Finnie's engagement having been made for two years certain, from the 16th October 1847, his services shall be dispensed with at the expiration of that term, and that in the mean time he shall consider himself "wholly and unqualifiedly" under the orders of the officiating collector of Tinnevely; that he should give his whole time and attention to instruct the natives in the practical use of the gins, presses, churkas, thrashers and other implements required in the cleaning and preparation of the cotton, but that he shall not interfere with the cultivation of the plant (whether American or Indian) further than offering his advice when asked for, and that he shall desist immediately from purchasing any more cotton on behalf of Government, and close his accounts and break up whatever establishments he may have entertained for that duty.

5. With respect to the operations in Coimbatore, it is ordered that Dr. Wight shall also desist from making further purchases of cotton on behalf of Government; that he shall discharge at once all establishments which have been hitherto employed for the experimental farms, and place Messrs. Sherman and Cuxton, and half of the East India boys (the other half being sent to Tinnevely) at the disposal of the officiating principal collector of Coimbatore, who will assign to all and each of them their proper posts and duties.

6. The gin houses are to be placed under the charge of their respective collectors, who are directed to make suitable arrangements for their being used by the ryots.

7. Dr. Wight is ordered to "fix as early a period as may be compatible with the engagements which have been entered into by him with the ryots of Coimbatore for finally closing his accounts and all concern with the experiments, and in the interim to give his advice and assistance to the officiating principal collector in order to carrying out the arrangements now contemplated."

8. On the receipt of these instructions Dr. Wight represented to you, that the lands constituting the experimental farms had all been in his possession several months, and were engaged, and compensation paid on the Puttah lands until the 1st May 1850; that they had all, with the exception of a few small patches, been repeatedly ploughed, and were ready for the reception of the seed; that from two-thirds to three-fourths of the expenses of the crop had been already incurred, and that unless it was grown, the whole sum would be

lost

lost, whereas by keeping the establishment together until about the end of the year, and growing the crop, the whole would be recovered. Dr. Wight further pointed out the "injurious effects on the agricultural community likely to result from the abrupt breaking up of an establishment which has been in operation for several years, and that at the very commencement of the sowing season, when it is well known to them nearly all the expenses of the crop have been incurred." Dr. Wight accordingly suggested the expediency of allowing the cultivation to proceed for that year, making it generally known that it was positively the last crop to be grown on Government account. "In this way," he adds, "time will be allowed for others to take our place, for the merchants to establish agencies, or it may be for the formation of a mercantile company to carry on the works on their present plan, but on a much larger scale; and, lastly, by adopting this course our present most excellent and thoroughly acclimated stock of seed will be wholly preserved, in place of in great part lost."

9. On this representation you recorded a Minute of Consultation (29th June 1849), stating that you were still of opinion "that the whole system of cotton farms should be forthwith discontinued as far as possible, and that what must necessarily be kept up for this season in consequence of the engagements which Dr. Wight has undertaken should be, as already directed, conducted under the superintendence and orders of the acting principal collector, who will have attached to him certain assistants of the experimental establishment, and thus be enabled to carry out the views of Government."

10. We are of opinion that under the circumstances stated by Dr. Wight, it would have been desirable to have avoided the abrupt termination of his arrangements, the more especially as the subject of introducing an improved system of cultivation into the cotton districts of India is one in which we have never ceased to take the deepest interest.

11. In our despatch of the 4th July (No. 11) 1848, para. 4, we observed that we "concurred in your opinion of the expediency of relinquishing the Government cotton farm in Coimbatore," as we "considered that the object with which this farm was established had now been fully attained by demonstrating that the soil and climate of that province were capable of producing cotton of a description in every respect suited to the wants of the British manufacturers."

12. In that despatch we also directed that, notwithstanding the discontinuance of the farms, Government should still continue to afford its aid by distributing American seed, either gratuitously or at a trifling charge, to those willing to cultivate it, and we also authorised the cultivation of fields in particular localities, with the view of ascertaining whether the soil and climate were suited to the production of the American or any other description of cotton. Although therefore we deemed the time to have arrived for discontinuing the expensive farming operations which had been carried on in Coimbatore, it was not our intention to prohibit the cultivation on a small scale on account of Government.

13. The order to desist from making any further purchases of cotton on behalf of Government is not warranted by the instructions communicated to you in the same despatch, para. 3, in which, with reference to the permission given to Dr. Wight to purchase American cotton from the ryots at remunerating prices on behalf of Government, we stated, "these purchases should not at present be discontinued."

14. It was not our wish or intention that Dr. Wight should be removed from the office of Superintendent of cotton experiments under your presidency. We have repeatedly acknowledged the value of his services in that capacity, and so recently as the 2d June (No. 10) 1847, we authorised you to grant him an allowance equivalent to the pay of a superintending surgeon, in consideration of his having been prevented from complying with the regulations of the service, by his employment "on a duty for which he possesses peculiar qualifications, and which it is desirable he should continue to discharge."

15. Perceiving no urgency in the case, we must express our regret that you should have adopted, without again referring to us, the course which you have pursued, and which we fear can scarcely fail to produce an impression, both in

India and in England, that we are become less earnest in promoting the object, important equally to both countries, of obtaining from India a supply of cotton suited to the requirements of the British manufacturers.

16. We fear that this despatch will not reach you in time to prevent the greater part of the arrangements which you have ordered from being carried into effect, but we desire that your proceedings may be, as far as possible, regulated in conformity with the following instructions.

17. If Dr. Wight's connexion with the Coimbatore farms should not have ceased, we should wish the cultivation to be carried on according to the plans laid down at the commencement of the season. You will make it generally known that the cultivation of the farms after the present season will not be undertaken by the Government, and if any company of merchants and planters should offer to take upon themselves the further prosecution of that part of the experiment, you will deliver over to them the lands, comprising the farms (subject of course to the ordinary assessment) with the machines and implements attached to them, at a fair valuation, due care being of course taken to protect the interests of those ryots whose lands may now or hereafter be engaged for the purpose of cotton cultivation.

18. With respect to Dr. Wight, we are of opinion that, before giving up the superintendence of the cotton experiments, he should be called on to furnish a clear and connected account of the experimental cultivation on the Coimbatore farms and elsewhere under your presidency, with such observations as his scientific and practical knowledge may enable him to offer as to the causes of success or failure. Such a report cannot fail to be a useful document as a guide for those who may be hereafter engaged in similar undertakings.

19. We observe that you propose to entrust the conduct of all future operations for the improvement of cotton cultivation to the collectors of land revenue in the several districts. In this class of our servants, there are doubtless many who will take a warm interest in this important subject; but even by them, we can expect that but little will be accomplished, unless they can look to some properly qualified officer to direct their proceedings, and to digest and methodise the results which they may obtain, so as to make them available for the guidance of others engaged in the same pursuit. In our despatch of the 4th July (No. 11) 1848, we intimated that, in our opinion, considerable advantage might be expected from the experiments then in progress under the superintendence of Dr. Wight throughout the presidency, with the view of ascertaining the most suitable time of the year for sowing the American seed. These experiments will be of little avail unless the officer by whose suggestions they have been undertaken shall be in a position to examine and report on their results, aided by his own extensive experience in the practical cultivation of cotton in other localities. We are, therefore, of opinion that Dr. Wight should retain the position of superintendent of cotton experiments under your presidency, until these objects are accomplished.

20. We approve of your resolution to dispense with the services of Mr. Finnie at the termination of his engagement.

21. The consignments of cotton from Coimbatore and Tinnevely on the ships "Ganges" and "Aurora" have been received, and have excited considerable interest among the manufacturers. We forward a report* on the quality of the several descriptions which have been furnished to us by the Commercial Association of Manchester. We desire that our former orders for an annual supply of these cottons may be considered to remain in full force.

22. On the receipt of this despatch, you will immediately make us acquainted with the extent to which the arrangements on which we have commented have been concluded, and how far it will be in your power, without detriment to the public service, to carry our present instructions into effect.

We are, &c.

(signed) A. Galloway.

J. Shepherd.

&c. &c.

London,
5 September 1849.

* This Report will be found with the Account Sales of the cotton towards the close of this volume of the Return.

Revenue Department.

(No. 73 of 1849.)

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

Para. 1. WE have the honour to acknowledge the receipt of your letter in this department, dated 5th September 1849, No. 12, and to transmit in reply an extract from the Minutes of Consultation, dated 22d October 1849, No. 1011, which will inform your Honourable Court of the measures we have taken, in pursuance of your instructions, for continuing the experimental cultivation of cotton in the territories of the Madras Presidency.

Diary to Cons.
23 October 1849
Nov. 34, Cons.
6 Nov.

2. We have also the honour to submit copy of a letter from Dr. Wight, reporting his proceedings on the resumption of his duties as Superintendent of cotton farms, under the orders communicated to him.

6 Nov. 1849.

We have, &c.
(signed) Henry Pottinger.

Fort St. George,
13 November 1849.

D. Elliott.

MINUTE 1011

Revenue Department.

(No. 1011.)

EXTRACT from the Minutes of Consultation, under date the 22d October 1849.

Para. 1. THE Right Honourable the Governor in Council proceeds to pass orders on the letter in this department from the Honourable the Court of Directors, dated 5th September 1849, No. 12.*

2. A copy

* 1 to 10. Review proceedings of Government relating to the discontinuance of the experimental cotton farms of Coimbatore and Tinnevely, and the arrangements for the disposal of the lands, machinery and establishments connected with them; are of opinion that under the circumstances represented by Dr. Wight, it would have been desirable to avoid the abrupt termination of the arrangements made by him for the cultivation of the lands constituting the experimental farms for the season.

11 to 14. Advert to the orders conveyed in their despatch of the 4th July 1848, and observe that although the time for discontinuing the expensive farming operations had arrived, it was not their intention to prohibit the cultivation on a small scale on account of Government; that the order to desist from making any further purchases of cotton on behalf of Government is not warranted by their instructions, which directed "that the purchases of American cotton from the ryots at remunerating prices should not be discontinued," and that it was not their intention that Dr. Wight should be removed from the office of Superintendent of cotton experiments.

15 & 16. Express regret at the course adopted, and fear that their present orders will not be in time to prevent the greater part of the arrangements which have been ordered from being carried into effect, but desire that the proceedings of Government may be as far as possible regulated in conformity with the following instructions:

17. That if Dr. Wight's connexion with the farm should not have ceased, he should conduct the cultivation on the plans laid down at the commencement of the season. It is to be made known generally, that the cultivation of the farms after the present season will not be undertaken by the Government; and if private speculators be willing to undertake the further prosecution of the experiment, the lands, machinery, implements, &c. to be made over to them at a fair valuation, with due protection to the interests of the ryots.

18. That before giving up the superintendence of the experiments, Dr. Wight should be called on to furnish a clear and connected account of the experimental cultivation on the Coimbatore and other farms.

19. That although the conduct of future operations be entrusted to the collectors, of whom there are many who will take a warm interest in this important subject, yet even by them little will be accomplished, unless there be some properly qualified officer to direct their proceedings and to digest and methodise the results they may obtain; and are therefore of opinion that Dr. Wight should retain the position of Superintendent of cotton farms until the objects contemplated by them, and adverted to in their despatch of the 4th July 1848, are accomplished.

20. Approve of the resolution to dispense with Mr. Finnie's services at the termination of his engagement.

21. Observe that the consignments of cotton from Coimbatore and Tinnevely on the "Ganges" and "Aurora" have arrived, and have excited considerable interest among the manufacturers. Forward a report on the quality of the several descriptions by the Manchester Commercial Association. Desire that their former orders for an annual supply of these cottons may be considered to remain in full force.

22. Desire, that on the receipt of this despatch they may be made acquainted with the extent to which the arrangements on which they have commented have been concluded, and how far it will be in the power of Government, without detriment to the public service, to carry their present instructions into effect.

II.
Madras.

2. A copy of paras. 11 and 12, and of paras. 17 to 22 inclusive, of this despatch, with the report of the Manchester Commercial Association referred to in para. 21, be furnished to Dr. Wight for his information and guidance, with particular reference to the observations and orders of the Honourable Court of Directors therein conveyed

3. Immediately on receipt of this order, Dr. Wight will resume his position as Superintendent of cotton experiments, and in that capacity attend to the important objects which the Honourable Court have in view, not only in Coimbatore, but generally in all the cotton-growing districts.

4. In Coimbatore Dr. Wight will have the immediate management of the gins, gin-houses, machinery, &c., and of all matters relating to cotton experiments, relieving the acting Principal Collector of the charge in respect of them entrusted to him by the orders of the 1st June 1849, No. 544, and carrying out, if practicable, the wishes of the Honourable Court for continuing for the season the cultivation of the lands referred to in para. 9 of his letter, dated 11th June 1849, with cotton on the plans laid down at its commencement, as indicated in para. 17. He will also attend to the instructions communicated in the remaining portion of the same paragraph, and give effect to them as far as it may be in his power.

5. In Tinnevely the collector will have charge of the gins, implements, &c., as directed in the above order, but he will be guided in respect of them, and of all matters relating to the purchase and shipment of cotton, or to its cultivation, by the communications he may receive from Dr. Wight.

6. The Honourable Court having intimated that it was not their intention to prohibit the cultivation of cotton on a small scale, Dr. Wight will have this object in view, and promote it wherever he may consider desirable, through the medium of the collectors, advising and directing their proceedings.

7. The purchase and shipment of cotton will be made as heretofore, the Honourable Court having directed that their former order for an annual supply of these cottons may be considered to remain in full force.

8. Dr. Wight will in due course furnish in a special report the information required in para. 18, but will immediately state for communication to the Honourable Court, the extent to which he may have been enabled to carry out their present orders.

9. It is the intention of Government by these orders that Dr. Wight should have the sole superintendence of the cotton experiments, and that all communications on the subject from the collectors and others should be submitted through him for the orders of Government.

10. Referring to extract Minutes of Consultation, 22d August 1849, No. 795, application will be made, through the military department, for the services of Dr. Wight being again placed at the disposal of Government, for the purpose of being continued in the experimental cultivation of cotton.

11. A copy of the foregoing orders, and of the paras. of the despatch to which they relate, will be furnished to the Board of Revenue, in view to their making the necessary communication for the guidance of the collectors of Tinnevely and Coimbatore.

(signed) W. H. Bayley,
Acting Secretary to Government.

Military Department.

(No. 3920.)

EXTRACT from the Minutes of Consultation, under date, the 25th October 1849.

Read the following letter

(No. 648.)

From Major R. Gordon, Deputy Adjutant-General of the Army, to Lieutenant-Colonel C. A. Browne, Secretary to Government, Military Department, Fort St. George.

Sir,

WITH reference to Minutes of Consultation of 23d instant, No. 3,891, I have the honour, by order of the Commander-in-Chief, to report that the services of Surgeon R. Wight, M.D., are available for the disposal of Government, but that that officer has obtained the Commander-in-Chief's leave to the Presidency till the 31st January 1850, preparatory to applying for permission to retire from the service.

Adjutant-General's Office, Fort St. George,
24 October 1849.

(signed) R. Gordon,
Dy. Adjut. Genl. of the Army,

WITH your military letter of the 14th August last (No. 50), you have forwarded a memorial from Dr. Wight, superintending of cotton experiments, in the event of a vacancy occurring in the Medical

From

From Surgeon *R. Wight*, Superintendent Cotton Farms, Coimbatore, to
W. H. Bayley, Esq., Acting Secretary to Government, Fort St. George.

Sir,

1. I HAVE the honour to acknowledge the receipt of Minutes of Consultation, No. 1,011, under date 22d October 1849.

2. Immediately on their receipt I placed myself in communication with Mr. Thomas: he being in a remote part of the district, I did not receive his reply until yesterday afternoon; but in the interval have adopted measures for submitting to the test of carefully conducted trial, the plan of cultivating both American and Native cotton with the aid of irrigation, as proposed in paras. 15 to 19 inclusive of my circular letter of the 20th March 1849. The season here is too far advanced to attempt its cultivation as a dry crop.

3. In regard to the lands mentioned in my letter of the 11th June the whole were given up to the ryots, except two or three fields, which were taken by Mr. Prince, a Cape farmer, who came here to receive instructions in cotton agriculture, and who, but for that accommodation, must have returned without attaining the object of his mission.

4. Before giving up the lands, Mr. Thomas, at my suggestion, entered into agreements with the parties who took them to grow American cotton. Some of those who got land on these terms have, I believe, bestowed considerable pains on its cultivation, and have the prospect of an ample return; others have been more negligent. As yet I have not had leisure to visit them, my time having been fully occupied in arranging for the immediate prosecution of my irrigation experiments.

5. For this purpose I have rented from the proprietors portions of several "gardens," and engaged a small nunjah field, which has for many years been lying waste. The gardens are to be cultivated, under my direction, by the proprietors, to familiarise them with our practice. The nunjah field is being cultivated with our own cattle, aided by a few hired ploughs.

6. Two of the gardens were partly sown with native cotton. In each I have kept a portion to be cultivated by the proprietor, and along side of it I shall, for comparison, sow an equal portion with native seed, to be cultivated according to the American method, and irrigate the same as the American cotton. This I do, in the hope of convincing the natives, who are impressed with the belief that irrigation is injurious to cotton, that they are in error. In these gardens it is my intention to sow every variety of cotton of which I have seed, namely, long-stapled, Sea Island and Bourbon, short-stapled, Mexican, Petit-gulph and Native cotton.

7. Though the whole extent of ground so cultivated will scarcely exceed 50 or 60 acres, I yet trust the trials will prove as conclusive as if made on a much larger scale.

8. Deeming it a matter of primary importance to ascertain the capabilities of the coast climate for the production of American cotton, I have further written to Mr. Cuxton, directing him to endeavour to obtain a few acres of land to be similarly cultivated, under the guidance of my late overseer Conner, who is well versed in agriculture, which Mr. Cuxton is not, his duties here having been principally confined to the ginning and purchasing branch of the business.

9. This I believe is all that can be done this year; next year I shall make it my endeavour to have the principles detailed in my circular (20th March 1849) subjected to the test of experiment in as many places as I can; and I hope also many trials will be made with the aid of irrigation, from which I anticipate the greatest advantage.

10. The report called for in the 18th para. of the Honourable Court's despatch will necessarily require some time to prepare, as I am not yet in possession of all the materials required. Such a report to be really useful and satisfactory must be full and comprehensive, embodying both principles and practical details. My present impression is, that under judicious management American cotton should become as certain a crop as Indian, and infinitely more profitable, and, I hope to show this season, that with the aid of irrigation it is nearly as certain and perhaps as profitable as either rice or sugar. In a word, I expect that, under similarly energetic management, American cotton will become to this part of India what indigo is to Bengal.

(signed) *R. Wight*, Surgeon,
Superintendent Cotton Farms.

Coimbatore, 6 November 1849.

Revenue Department, 25 April (No. 4) 1851.

Our Governor in Council at Fort St. George.

MEMORIAL of Dr. *Wight*.

1. WITH your military letter of the 14th August last (No. 50), you have forwarded a memorial from Dr. Wight, superintendent of cotton experiments, soliciting to be informed whether, in the event of a vacancy occurring in the
296—Sess. 2. H H 3 Medical

II.
Madras.

Medical Board, he would be considered eligible for promotion to that office, and generally whether, notwithstanding his continuance in the performance of civil duties, he would be held entitled to the pay and privileges which he would have obtained if he had made his tour of military service in the usual course.

2. In your letter, dated the 14th November (No. 54) 1846, you brought to our notice the claim of Dr. Wight to the office of Superintending Surgeon, or to the allowances of that office; and while you were of opinion that he was not eligible for that appointment under the rules of the service, you observed that "so long as a superintendent for the cotton farms is required, Dr. Wight seems the most qualified person to fill the situation." Concurring in your view of his ineligibility for the appointment of Superintending Surgeon, but fully sensible of his peculiar qualifications for the office which he held, and desiring that his services should be retained in that capacity, we authorised you, by our despatch of the 2d June (No. 10) 1847, "to grant him an additional allowance equivalent to the difference between his present pay and that of a Superintending Surgeon, from the date on which he would otherwise have been eligible for promotion to that rank."

3. For a similar reason, although Dr. Wight is disqualified by the rules of the service for a seat at the Medical Board, we think that he ought not to be debarred from the enjoyment of the advantages which that appointment would have given him.

4. We accordingly authorise you, as we have recently authorised the Government of Bombay, in a similar case which has occurred under that presidency, "to grant him all the advantages to which he would have been entitled as a member of the Medical Board, from the date on which, under other circumstances, it would have come to his turn to be placed in that situation."

We are, &c.

(signed) John Shepherd.

J. W. Hogg,

&c. &c.

London, 25 April 1851.

REVENUE LETTER from Madras, dated 5 June 1852 (No. 26)

Para. 1. WITH reference to the correspondence noted in the margin, we have the honour to forward copy of a letter from Dr. Wight, superintendent of cotton experiments, giving cover to one from the collector of Tinnevely, and recommending that, with the view to encourage the culture of American cotton in that district, the Government should engage to purchase all that is grown by the ryots at a fixed rate.

2. We also beg to forward copies of the Minutes recorded by us on the occasion; and an extract from the Minutes of Consultation founded thereon, and to solicit the attention of your Honourable Court to these papers.

Enclosure to No. 26 of 1852.

EXTRACT Fort St. George Revenue Consultation of 1st June 1852

Read the following Letter:

From Dr. R. Wight, Superintendent of Cotton Experiments, Coimbatore, to
T. Pycroft, Esq., Secretary to Government, Fort St. George.

Sir,

1. I HAVE the honour herewith to transmit copy of a letter from Mr. C. Bird, on the subject of Government encouraging the culture of American cotton in the Tinnevely district, by engaging to purchase all that is grown by the ryots at a fixed rate; and beg leave to solicit the instructions of the Right Honourable the Governor in Council, as to the reply I am to make. I send along with it portion of the "Manchester Guardian" newspaper, reporting the proceedings of the annual meeting of the Commercial Association of that place,

21 January 1852.

- * From Honourable Court, 8th October 1845, No. 5, p. 9 & 10.
- From - ditto - 4th July - 1848, No. 5, p. 3.
- From - ditto - 5th September 1849, No. 5, p. 13 & 21.
- To - ditto - 23d - ditto - No. 55, p. 9.

Cons. 1st June 1852.

for 1852, in the hope that the information it contains may prove useful while considering the question.

2. The impression on my mind is, that the most judicious course would be, to authorise Mr. Bird to inform the ryots that their produce would be purchased on Government account, at the rate specified, which I consider a fair price, provided they cannot find an equally good market elsewhere; and that copies of the decision of Government on this question be communicated for the information of the Manchester Association. This last I suggest in the belief that that body would at once, with its proverbial public spirit, be induced to take up the matter energetically, and, by establishing agencies for the purchase and growth of exotic cotton at several stations along the coast, give an impulse to this new branch of industry which it is impossible for any amount of Government patronage to confer.

3. As bearing on the subject under consideration, I trust Mr. Prendergast will excuse my taking the liberty of introducing some extracts from a private note of his, as by doing so I may at the same time be instructed how to reply officially to his question:

"Tis all very well to put down cotton seed and to have fine crops, but who is to purchase the produce, and what price is it to fetch here, where it is not wanted? The weavers say it won't do for their purpose, and the ryots say it won't pay. Will Mr. Lees, or any of your correspondents, buy it and export it unscrewed from Coringa? or will they set up screws at that place? Perhaps you are not aware that cotton, to the value of a lac and a half of rupees, annually passes through this district into Vizagapatam. Why should it not be screwed and go by sea? The exotic you send is so soft, the weavers here can make nothing of it. Where, then, are we to find a market for it?"

4. I have introduced these extracts, on the supposition that the facts stated may chance to be as little known to others as they were to myself previous to their perusal, and in the hope that, by making them better known, some enterprising person or company may be induced to locate in that neighbourhood, where it appears so much business is transacted, and become the medium of establishing a trade not less profitable for themselves than advantageous for the country through which it passes.

Coimbatore, 29 April 1852.

(signed) R. Wight,
Superintendent Cotton Experiments.

(No. 374.)

From C. J. Bird, Esq., Collector, to Dr. R. Wight, Superintendent Cotton Experiments,
Coimbatore.

Sir,

1. In reply to your letter of the 23d ultimo, I have the honour to state that I should wish to be supplied with from 50 to 70 bags of New Orleans cotton seed, if so much can be spared for this district.

2. If Government will authorise me to promise that the produce of this cotton seed shall be purchased on their account at 9 annas a toolam on the spot, the ryots will, I have no doubt, accept the seed, and cultivate it freely. This is the rate at which Mr. David Lees bargained with the ryots, and I was in hope Mr. Arthur Lees would have allowed me to make known his willingness to purchase all cotton produced from this seed at the same rate. He requires time to consider whether he will do so, and has not given me an answer as yet. The Messrs. Longshaw do not seem willing to enter into any certain agreement of the proposed kind, but say that if seed is given to them gratis, they believe they shall be able to persuade ryots to cultivate largely.

3. Unless a certain market is placed before the ryots of this district, I am satisfied they will not undertake the cultivation of the New Orleans plant.

(signed) C. J. Bird, Collector.

Tinnevely, Trichendore,
20 April 1852.

MINUTE by the Right Honourable the President.

Letter from Dr. Wight, No. 447, regarding authority being given to the Collector of Tinnevely to engage to purchase at a fixed rate all American cotton grown by the ryots.

I do not think there is any thing in the Honourable Court's orders that would authorise Government to sanction any such engagement as is proposed in the above letter. It seems to me to be asking the East India Company to take on themselves the business of merchants for the benefit of others; in other words, that it is suggesting that Government should purchase cotton at any price, and dispose of it to the manufacturers of Manchester on such terms as would suit their purposes of trade. I have from the first decried so unheard of a system, and pointed out that it is the duty of the Manchester manufacturers to send their own agents to the cotton-growing districts to make their own bargains with the cultivators. If the rate proposed to the cultivator is a fair one, as is asserted, why should the merchants or their agents hesitate to close with it? The answer seems to me simply to be, that they

II.

Madras.

want to persuade or compel Government to undertake that which they themselves should undertake.

The system of cotton experimental farms by Government has been, I respectfully conceive, from the outset a total failure as respects either the benefit or tuition of the ryots in cultivating, and likewise the source of much expense and loss to the public. The ryots not only did not learn anything practical from those farms, but they were deterred by the outlay which they saw incurred upon them from entering into any such unprofitable speculations.

I have before stated, and I here repeat my solemn conviction, that the Madras Government have failed in no legitimate means to encourage and promote the extension and improvement of the cultivation of good cotton, whether indigenous or exotic. Every application connected with the subject has been attended to, and every want supplied with a profuse hand; but I cannot, for the reasons assigned above, consent to the present proposal.

I have briefly recorded my sentiments in this form, in order that they may be sent to the Honourable Court, to whom a copy of Dr. Wight's communication should be forwarded by the next opportunity.

17 May 1852. (signed) Henry Pottinger.

MINUTE by the Honourable Mr. Thomas.

I CONCUR entirely in these opinions, and the same views will also be found recorded in former minutes.

All our experience, I think, teaches us that the continued direct interpositions of the Government, and the employment of Government funds and agency in such matters, are positively injurious. They throw back the day when private capital and enterprise will come fully into the field: and that, and that alone, I believe, can ever really determine whether cotton, or any other product, can be permanently brought into the British market, paying a remunerating price to the growers and a profit to the exporter, without which, of course, it will not be produced. As Government expenditure and a costly and imperfect agency, with little or no practical knowledge like that of Dr. Wight, his subordinates cannot, I believe, ever determine this point; and it remains even now to be asked, what has been the practical result of Dr. Wight's agency for the last 10 years. It is yet to be ascertained from trustworthy data, whether Indian grown cotton, exotic or indigenous, can be raised and prepared for the British market at a remunerating price to the growers.

19 May 1852. (signed) J. F. Thomas.

(No. 495.)

The Right Honourable the Governor in Council is of opinion that the instructions furnished from time to time by the Honourable the Court of Directors do not authorise this Government to enter into any engagement of the nature proposed by Dr. Wight in the above letter, viz., for purchasing from the ryots at a fixed rate all the cotton grown from American seed in the Tinnevely district. The proposition is objectionable on many accounts. It would place Government in the position which should be occupied by the private merchant, and would tend to interfere with the application of private capital and enterprise. The Governor in Council is of opinion that the great practical question connected with the production of cotton in India for the British market, viz., whether it can be brought into that market at such a price as will remunerate the grower and exporter, can only be solved by the mercantile community themselves; and that any interference on the part of Government, such as that advocated by Dr. Wight, would be injurious rather than advantageous. If the rate named by the collector be a fair price, the Government are unable to understand why the cotton merchants or their agents who are settled in the district, should hesitate to give it.

2. The Governor in Council resolves to submit Dr. Wight's letter, with the views above recorded, to the Honourable Court by the next opportunity.

(signed) T. Pycroft,

Fort St. George, 1 June 1852.

Secretary to Government.

REVENUE LETTER from Madras, dated 8th July 1852.

(No. 33.)

IN continuation of our letter in this department dated 5th June last, No. 26, we have the honour to forward copy of a letter from Dr. Wight, furnishing the report required by your Honourable Court in para. 18 of your Revenue Despatch, dated 5th September 1849, No. 12, on the result of the Government cotton experiments in the Madras Presidency.

We also submit copies of Minutes recorded by us on this communication, and an extract from the Minutes of Consultation, containing the observations of Government upon the subject, and to which we solicit the attention of your Honourable Court.

Enclosure to No. 35 of 1852.

EXTRACT Fort St. George Revenue Consultation of 6th July 1852.

Read the following letter

From Dr. R. Wight, Superintendent Cotton Experiments, Coimbatore, to T. Pycroft, Esq., Secretary to Government, Fort St. George.

Sir,

I HAVE the honour herewith to forward the report called for in Minutes of Consultation, No. 1011, under date the 22d October 1849. I trust that on perusal the Right Honourable the Governor in Council will feel satisfied that it could not have been so satisfactorily completed at an earlier date; had it been finished but a month sooner some most important points, those relating to the comparative productiveness of the native and exotic species as grown by natives, and under exactly similar circumstances, must have been left out, or very incompletely stated, while in truth I considered their insertion a matter of sufficient importance to justify my waiting some months to ascertain the result; so also must my references to the recent progress of the Trichendore and Madras experiments, the accounts of both of which reached me after the report was drafted, and had afterwards to be incorporated.

(signed) R. Wight,
Superintendent Cotton Experiments.
Coimbatore, 12 May 1852.

From Dr. R. Wight, Superintendent Cotton Experiments, Coimbatore, to T. Pycroft, Esq., Secretary to Government, Fort St. George.

Sir,

1. THE report called for in Extract Minutes of Consultation, No. 1011, under date the 22d October 1849, has been purposely, I may almost say, unavoidably delayed, to enable me to present a succinct view of the very important changes in the aspect of this experiment which the last three years have gradually brought about, and which are still, but I hope with more rapid steps, advancing.

2. Previous to that time, though encouraging inducements in the shape of high prices and certain markets were held out, we could not induce the natives of Coimbatore to engage in the culture of American cotton beyond a very limited extent, and then it was usually done in such an unwilling and unsatisfactory manner as almost to insure failure. Of the reports which reached me from other parts of the country, many were much to the same effect, generally unfavourable, almost leading to the belief that the soil and climate of India were really unfavourable to its growth, and that the conviction (on my own mind) to the contrary, which I had so often expressed, was based in error, the offspring perhaps of a too sanguine disposition, though resting on the fact of our usually realising good average crops, and often really heavy ones, under circumstances by no means peculiarly favourable.

3. Within the last two years a series of changes have taken place, and are now making very perceptible progress, but which can scarcely yet be said to have advanced so far as to admit of certain conclusions being deduced as to the final result, though for the present holding but a most encouraging prospect.

4. Within that brief period many of the ryots of Coimbatore seem to have become so well convinced of the much greater advantages they derive from cultivating the exotic than their indigenous cotton plant, that, unless I am greatly misinformed, they planted last season from 1,500 to 2,000 acres of ground with it, and seem as if they intended to treble the quantity this one.

5. I have besides had numerous requisitions from various quarters for supplies of seed, and, in answer to my circular addressed to the collectors on the subject of receiving portions of the new seed just arrived from home, all except one who have as yet replied have requested more or less for their respective districts. Lastly, within little more than that period a novel extension has been given to this experiment, which promises to yield most important results; I allude to those trials now in progress on the sea coast, the past success of which, though conducted under considerable disadvantages, originating in want of agricultural experience, is such as almost to lead one to anticipate that ere long the sandy soils of the coast will be considered as holding about the same relation to the exotic that the so-called "black cotton soils" of the interior do to the indigenous plant.

6. In a general report it is necessary that each of these topics should be adverted to, and in sufficient detail to admit of useful conclusions being deduced; in this necessity originates the delay which has taken place in the preparation of this Report, and which might, I believe,

II. Madras.

be still further delayed with advantage, as fresh information of a useful character is still coming in.

7. I am unable to account for the unwillingness so long evinced by the natives of Coimbatore to enter upon the cultivation of American cotton, but it seems quite certain that it had some connexion with the existence of the farms, for so long as they were in full operation no amount of inducement that I could hold out seemed to have any effect in stimulating them to engage in it beyond a very limited extent, whereas now it has passed almost entirely into their hands, and is rapidly extending.

8. In the season 1849-50 the farms were given up, and the growing crops on them made over to the ryots. Of those who got portions some tended them with care and obtained for the produce unexpectedly large returns; others gave themselves no trouble, but still obtained more than they expected or would have done from an equal extent of ground carefully cultivated with native cotton.

9. These successes seem to have had the effect we had hitherto endeavoured in vain to produce, that of satisfying all who took any interest in the matter, that there was but little if any difference in the mode of culture of the two plants, and that *ceteris paribus* the profits accruing from the new one were much greater than from the old.

10. The experience of the current season has greatly strengthened these impressions. Two fields (red soil) side by side, both cultivated by natives, were sown, one with native, the other exotic cotton. The former has produced about 27 lbs., the latter 57 lbs. per acre. Again, two fields, each about 22 acres, one black the other red soil, were sown, the former with native and the latter with exotic cotton; the total produce of the former was 500 lbs., of the latter 1,250; showing, as they were sown at the same time (November) and as regards climate and culture were in exactly similar circumstances, that the chances of success in unfavourable seasons, and I presume equally in favourable ones, are greater in the case of the exotic than the native plant, while the produce obtained is more valuable; in a word, showing that in India, American is a less precarious and much more profitable crop than Indian cotton.

11. For the season 1850-51 we had many more applications for seed than any previous year, and were in consequence enabled to purchase 51 bales of native-grown American cotton. That season was not by any means a particularly favourable one. This success gave such an additional impulse to the change of feeling in progress that the applications for seed for the season 1851-52 were on a greatly extended scale, and this season already we have despatched for transmission to England 90 bales, and I expect before the end of the season to obtain a good many more.

12. From what I can learn it appears that the growers are particularly well pleased with their success, as strikingly contrasting with the comparative failure of the crops of native cotton, which have this season very generally fallen considerably below the average, owing to the almost total failure of the north-east monsoon, that being the usual sowing season in this district. The greatest part of the New Orleans cotton was sown during rainy weather in July and August, and being well advanced before the scanty north-east rains set in, derived great benefit from them. Indeed, when so managed, the danger to it lies in excess rather than deficiency of the latter rains, a rare contingency however in this district.

13. The current season (1851-52) has, as regards the character of its two monsoons, been peculiar, both, but especially the latter, being far below the average, but notwithstanding the crops of New Orleans cotton have been, with the exception of one or two fields, generally good, while those of the indigenous, as already remarked, are light. Under these circumstances, I presume all those ryots who have succeeded this season will continue to cultivate the exotic, if not at once in preference, at all events comparatively along with the indigenous sort. This I the more expect, as a spirit of inquiry is abroad among them, and they knowing well the kinds of soil best suited to each, and being intimately acquainted with the qualities of their land, will rarely fail from an injudicious selection.

14. Hitherto I find they have followed and approve of the plans to which we give the preference, that of selecting light sandy soils which do not take in dry weather, and through which both the roots and moisture can easily and deeply penetrate; sowing in rows, not broadcast, and ploughing and otherwise cultivating the ground between the rows. One great advantage attendant on this last measure which they now began to perceive and appreciate, is the facility it affords of fallowing while the crop is still on the ground, by repeated ploughings between the rows as a preparation for the next rotation, fallowing being a system of cultivation much in vogue among the ryots, apparently as furnishing a cheap substitute for manuring.

15. Much has been said and written on the subject of cultivating American cotton in India. Many at an earlier stage of the experiments for its introduction having come to conclusion that the climate and soil were both so far inimical to the constitution and habit of the plant as to render its naturalization impossible.

16. This view, which is still maintained by some, is in my opinion founded, first on imperfect observation, and secondly, on the error of comparing dissimilar things: on imperfect observation, in assuming that the Indian plant was less precarious, and generally succeeded when

when the exotic failed. This is so far from being the case, that I know I am correct in stating that when we had bad crops of American, those of the Indian plant under similar circumstances were worse, and I now feel nearly quite certain that had equal areas over the whole country been for the last ten years annually appropriated to each, that the outturn from the American would generally if not always have exceeded that from the Indian plant, both in weight and value. In comparing dissimilar things, that is, in comparing the crops of India with those of America, without sufficiently adverting to the difference in the circumstances under which they are respectively produced, the simple fact of our having had the American plant in cultivation from the same stock of seed for 11 years without apparent deterioration in the quality of either the cotton or seed, proves beyond all doubt that neither climate nor soil is inimical, as had such been the case, the qualities of both must long ere this time have suffered. In the course of these 11 years, it has been cultivated in all kinds of soil, rich and poor, wet and dry, equally in every different climate, temperate and hot, humid and dry. Under these varying circumstances the weight of the crops has greatly varied, but not the quality of the cotton and seed, both of which remain comparatively unaltered.

17. If, as I believe, the diminished weight of the crops realised in India (as compared with those grown in the most fertile districts of America along the banks of the Mississippi), has given rise to the opinion, that the climate and soil of India are unfavourable, then I conceive it rests on an unsound data, which could scarcely fail to lead to erroneous conclusions. Fertility or otherwise of a soil depends on causes liable to vary, and often widely differs in adjoining fields, and as is well known, is in a perpetual state of change, being more or less modified by every crop grown. In the deep alluvial deposits along the banks of the Mississippi, the material on which the cotton plant feeds is found in such abundance that several successive crops are taken off them without any alternation or other manure than that supplied from the ashes of the old plant, which is burned on the ground. The soils of India, on the other hand, originally perhaps less abundantly supplied with this material, and now greatly exhausted from long use, produce less (on the average perhaps scarcely exceeding one-fourth), and rarely yield two successive crops off the same field; but as if to prove that the deficiency is simply attributable to impoverished soil, we from time to time find heavy crops produced on land newly broken up after lying long untilled, and which are repeated for two or three years successively. Generally, however, a crop amounting to from 400 to 500 lbs. of seed cotton per acre may be viewed as a heavy one, and gives a very handsome profit to the grower, being nearly double that usually obtained from the indigenous plant grown on even the best and most fertile black soils.

18. If, on the other hand, we compare India with those less fertile provinces of America in which the upland Georgian cotton is grown, the discrepancy is not so great there; from 400 to 500 lbs. per acre is considered a good crop, thus placing them nearly on a par with the medium soils of India. This fact shows, that in comparing the fertile Mississippi with India, we are comparing most dissimilar things, and goes far to prove that the soils of the Georgian provinces are similar to those of India; and as it is now here alleged that they are unsuitable for the growth of this plant, I think we are justified in assuming the same for those of India, now that we have ascertained from extended experience that the produce does not deteriorate, and that nearly similar crops are obtainable here in average seasons.

19. The climate of Georgia is, however, I believe, more congenial, and it cannot be denied, nor would it be right in me to keep the fact out of sight, that the seasons are often drier here than there, and that our crops more frequently suffer from drought. This is not so much owing to insufficiency in the quantity of rain that falls, as from its all falling within too short a period. Occasionally for months scarcely a shower falls, until the monsoon regularly sets in, and then, in place of the total quantity being distributed over two or three months, nearly the whole falls in as many weeks, or even days. This, in the light sandy soils best adapted for the American plant, is unfavourable, but as it rarely happens that there is not rain enough in the course of the months of August and September for sowing, and as the plant is one, when once fairly above ground, capable of sustaining protracted drought, I conceive the after loss of crop from that cause will be found an event of rare occurrence in the usually short interval between sowing and the setting in of the monsoon rains, and still more rare after the rains, as the plant then grows rapidly and strikes deep root, securing for itself a steady supply of moisture long after the surface has become dry.

20. If this principle (that of taking advantage of chance falls of rain and sowing in anticipation of the monsoon) were kept steadily in view in the cultivation of the American cotton plant, it is my belief that it might be successfully cultivated in any part of the Carnatic, and due attention being bestowed on the selection of soil, the losses from failure of crop would be rarer than now happens in the case of the indigenous plant.

21. In the past years those portions of the south-west talooks of the Coimbatore district, usually visited with autumnal showers, which were sown with American seed in August and September, have yielded very fair returns, while others, cropped with the indigenous plant, the sowing of which was delayed for the monsoon, have very generally failed, the rains having entirely ceased within a week from their commencement. The rain which fell during that brief period was found sufficient to bring the more advanced plants into bearing, but not enough for those only then sown. In a word, I have now no hesitation in stating it as my conviction that the American may and will become as thoroughly naturalized in Southern

II. Madras.

India as the native species; that it will be found on the average as productive in even the black soils, and that in those more suitable to its habits infinitely more so.

22. I wish, however, distinctly to restrict this statement to these provinces, with the climate of which I am myself acquainted, as I learn from various sources that in many parts of Bengal the climate is most unsuitable, being much too parched and hot during the hot, and too cold during the cold season. Here we labour under disadvantages, similar in kind, but not in degree. The climate of the Carnatic is too hot and dry to admit of other than irrigated cultivation being safely attempted during the spring months, and sowing during the summer ones (May, June, and July) is too early, inasmuch as it would throw the maturing or harvesting stage into the monsoon season, when much of the crop would be injured by wet weather; but our cold season being scarcely cold enough materially to injure the plant (at least if about two months old), we are generally enabled so to adjust our operations as to ensure our harvest commencing in January, which, with the three following, being the driest and clearest months of the year, are the best suited for gathering the crop; wet weather at that stage being most injurious.

23. With respect to the remark above made, to the effect that under judicious management the American plant will be found nearly as productive in the black cotton soils as the indigenous one, it is proper to mention that in my own trials I have met with considerable discrepancy. In the Coimbatore district, where there is a larger admixture of sand in the black soils than I have met with in some other localities, the crops of American cotton obtained from the black soils have equalled or exceeded in weight those obtained from the native plant; but at Sevacausey, in Tinnevely, the produce during the current season promises to be small indeed. The soil there is much more tenacious than here; but the present does not seem to have been a good year for instituting experiments, it being generally, at least in that line of country, an unfavourable one for both kinds. When I passed through the end of February, the bulk of the crops of native cotton had scarcely attained above six or eight inches in height, though in ordinary seasons they should by that time have been two feet and rapidly coming into crop. I have not heard the relative success of the two kinds since coming into crop; but learn from Mr. Cuxton that, so far as the harvest has yet advanced, the pickings of New Orleans cotton have scarcely amounted to 20lbs. per acre, while on another field, having a well, and which had been occasionally watered, the crop amounted to 260lbs. per acre. Unfortunately this experiment is not conclusive as to the benefit derived from irrigation, for the soil was different, being much less tenacious than the other. The superiority of the crop in the latter case may, therefore, be as much owing to the difference of soil as to the watering. When I visited the fields, I found the soil of the unirrigated land amply moist, but so stiff that it was difficult to dig it, while the other was comparatively friable. So far these comparative experiments are unsatisfactory.

24. In the Dharwar district, I learn, partly from the published reports, partly from private letters I have seen, that in average seasons the crops of New Orleans cotton on black soils amount to from 200lbs. to 250lbs. per acre. This corresponds with our Coimbatore experience, and as it equals, or perhaps rather exceeds, the produce of native cotton, it leads to the supposition that as it becomes better known, it will here, to a great extent, supersede on that kind of soil the native plant, as it already does there.

25. One objection stands in the way of this expectation being realised, the difference, namely, of their qualities, the one being very soft and silky, while the other is hard and rigid. The native spinners, long accustomed to the latter, find it difficult to work with the former; hence for their own use it is at discount. But even this objection in some parts of the district is giving way, practice overcoming the difficulty.

26. When I first came to the district, the Bourbon cotton, which is softer than the New Orleans, was not used in domestic manufacture, but is now to a great extent. The New Orleans will, I have no doubt, in like manner come into domestic use when more largely produced, and the price has found its just level and acquired a market standard, provided the difficulty of separating it from the seed does not stand in the way; so far as its cultivation is concerned all obstacles seem already removed, and the prejudice as to the insalubrity of the seed for feeding cattle is already overcome to a very great extent.

27. All now, therefore, that is wanted to secure the rapid extension of the cultivation of this plant is a steady market, and moderate competition among merchants, to convince growers that it is really in demand. Were such competition established, I have no hesitation in affirming my belief that 20,000 acres would be cropped with this plant within three years from this time, and that it would rapidly extend from this to the neighbouring districts. The cultivation is as simple, is as well understood, and the cost is not greater than for the native plant, while the crops are, in the main, as certain, and the produce greater and more valuable in the market. Such being the advantages which in the inland districts it possesses over the native staple, they will doubtless ere long prove sufficient to obtain for it as general favour among the agricultural community here as it has already acquired in Dharwar, if exporters will only stimulate its production by calling for it in preference to its inferior rival, the Opium or native cotton.

28. This desiderated change is likely to be accelerated by such comparisons as those already adverted to, of the relative out-turn from the two plants when grown under similar circumstances, which I believe will very generally be found to turn in favour of the exotic both as regards weight of produce and market value.

29. The only impediment I anticipate appertains to the greater difficulty of separating the wool from the seed in the case of the latter, which will for some time stand in the way of its coming as freely into domestic use as the Bourbon cotton. As the case now stands, growers are under the necessity of selling their whole crop with the seed in it in place of the clean cotton only. This trebles the cost of carriage, and prevents the grower retaining any portion for domestic consumption.

30. Having thus briefly stated the present condition and future prospects of this experiment for the naturalization of a valuable exotic in the interior districts of Southern India, so far as I have been enabled, from personal observation, to do so, it now remains for me to advert to what is doing on the coast, which I apprehend will be found a favourable field for the cultivation of several of its most useful varieties. Those to which I more particularly allude are the Mexican or New Orleans, the Sea Island, Egyptian, and the Brazilian or Pernambuco. The three last are long-stapled cottons, and fetch high prices in the English market.

31. On this branch of the subject my remarks must, I fear, be less explicit, as I have seen but little of the coast experiment, which is still in its infancy, and having been hitherto under the guidance of gentlemen but little conversant with agricultural affairs, has to that extent laboured under considerable disadvantage.

32. It is long since some imperfect trials at Madras, aided by theoretical views, led me to the conclusion that the coast climate would be found better suited to its constitution than the drier atmosphere of the interior, and I wished to have a farm established there practically to test the soundness of my views, but difficulties lay in the way not easily surmounted, and the experiment on an adequate scale remained untried.

33. Within the last three years three distinct parties have embarked in the undertaking, and are carrying it on on a large scale with much vigour. The gentlemen to whom I refer are Messrs. David and Arthur Lees and Messrs. T. and N. Longshaw, both from Manchester, at Trichendore, and Mr. Kenrick, at Madras, all of whom merit honourable mention in connexion with this experiment.

34. The aggregate extent of land now under cultivation by these persons amounts, I think, to about 2,500 acres, exclusive of smaller patches held by others, whom they have induced to follow their example. The Madras experiment I have not myself seen, but the Trichendore ones I have, and think that when the conductors have acquired some further agricultural experience they will turn out well.

35. Mr. David Lees was the first to engage in it, and in him they found a warm and sanguine advocate, but unfortunately an unskilful agriculturist. Had his knowledge been equal to his zeal he would have left us nothing to desire, but such not being the case, his success has not equalled his anticipations, while his too highly coloured statements have led to disappointments on the part of those who placed reliance on them. Fortunately, the sums invested by them were not great, and the less small, disappointed hopes, rather than actual loss, being perhaps the heavier grievance.

36. As an instance of his sanguine turn of mind, I was told the crop he left on the ground (when leaving India) realised only about five in place of, I think, 150 bales, which he estimated. If in this instance my memory has proved treacherous, and led to exaggeration, which however I think is not the case, I am enabled to quote another from a letter of his published in the Proceedings of the Manchester Commercial Association, in which he states that the highest rate he had yet obtained "was 112 lbs. of clean cotton per acre," but that he expected "many times" that amount when "rightly cultivated." To prevent misrepresentation, I quote the passage on the margin.

37. I allude to this statement, not in an unfriendly spirit, but because I deem it unfortunate that it should have gone forth from one supposed to be a good authority, and addressed to persons reposing implicit reliance on the correctness of his facts and soundness of his judgment. One hundred and twelve pounds of clean cotton represent about 380 lbs. of seed cotton, in itself a very large crop from such land as he cultivated, but which he expects

The extension of the culture has also been greatly hindered by a mistake on my part. I did not sow deep enough. In my previous sowings I had followed the practice of other countries, and other parts of India; and the partial success I had then obtained made me afraid of any deviation, more especially as I had never seen the effect of the monsoon rains upon the sandy coast lands of Tinnevely. But on reflecting upon the fact that the native cotton seed, which is sown broadcast, is harrowed into the ground to all depths, from one inch to six; I resolved upon increasing the depth of my sowings from an inch and a half to three inches, and accordingly I did so increase it. However, from what I saw of the plants before I left India, I became convinced that even my three-inch sowings were not by any means deep enough; for I noticed that in those parts of every field which were about a foot below the usual level the plants continued to grow and flourish, whilst in the other parts of the same field they remained stationary; and I also noticed that the roots of the growing plants were white and succulent, whilst those of the stationary ones were brown and semi-dried. It was therefore evident to me that I had not sown deep enough; and I have consequently instructed Mr. Arthur Lees to sow still deeper. But though this mistake is now, I trust, rectified, it has prevented me from being able to state how much per acre the New Orleans plant will produce on the sandy coast lands of Tinnevely; as even the largest produce obtained during the past year has not been more than at the rate of 112 lbs. of clean cotton to the acre, whereas I am perfectly certain that the plant, when rightly cultivated, will yield on those sandy plains a yearly produce of many times that amount.

expects can, by a modification in the method of cultivation, that is, by deeper sowing, be increased "many times."

38. I am unwilling to question the correctness of the fact as here stated, but judging from what I saw, I think I am justified in affirming, that if the land I examined yields annually an average crop of 300 lbs. of seed cotton, equal to 90 lbs of clean, that it will be found the best paying land in the country, the assessment and agricultural charges being both so light. The best Poonjah land, even when yielding three crops in two years, rarely, I believe, gives for a term of years an annual average return of 15 rupees an acre.

39. Highly assessed black soils under native cotton rarely return per crop above 8 rupees the acre, even in favourable seasons. This season being an unfavourable one, 3 rupees the acre will perhaps be found nearer, but probably above the average.

40. Then, as regards the modification of the cultivation, which is to produce this accession of crop, namely, deep sowing, it is a mistake, founded on an erroneous deduction, and in practice has already been found to do harm. Cotton ought not to be sown deeper than one or two inches. What is required is a light loose soil, into which its slender tap root can easily penetrate, and that being secured, the nearer the surface the seed lies the better. Nature sows entirely on the surface, and ordains that the root shall descend and the stem ascend; and loose soil and light covering promote both these ends, and are more likely to increase than diminish the produce; but unless the former of these conditions is secured and maintained by occasional hoeing and ploughing between the rows the plant does not thrive. The roots, in short, of a healthy growing plant require the free access of air almost as much as the leaves do light, and unless they get it the plant becomes more or less sickly.

41. The success, however, of Mr. Lees' experiment, though falling far short of his anticipations, has been such as to establish beyond all doubt that the sandy soils along the coast, if not the best, are at all events aided by the humid atmosphere, very suitable for the cultivation of exotic cotton, a fact becoming daily more firmly established by the success attending the well-conducted efforts of both the Messrs. Longshaws and Mr. Kenrick, from both of whom I have recently received very favourable accounts of the progress they are making.

42. In addition to a light assessment, these lands possess, for a tropical climate, the further important advantage of being easily cultivated at all seasons, whether wet or dry, as the cost of cultivation is thereby materially lessened. The crops too, will, I expect, be found much more uniform, as being less liable to injury from occasional protracted droughts; for moisture being for the most part near the surface, will generally be within reach of the roots, which have a tendency to penetrate to a great depth in search of it.

43. Giving due weight to these favourable circumstances, I anticipate that crops averaging from 200 to 250 or even 300 lbs. the acre, will generally be realised, at which rates, if the ryots can only be induced heartily to engage in the cultivation of these cottons, the shores alone of the Carnatic will, in the course of a few years, be able to produce many thousands of bales, and having the advantage of cheap transit to the port of export at prices which will at all times enable the Indian to compete with the American grower.

44. The method of cultivation is most simple. The ground should be ploughed and kept in readiness to receive the seed at a day's notice; a single heavy shower will then fit it for its reception. Any such falling between the middle of August and beginning of October should be taken advantage of to get the seed sown. If this is done the plant will be sufficiently advanced to derive the fullest benefit from the monsoon rains, and should come into crop in the course of January, from which time, in ordinary seasons, it will yield a constant harvest for three or four months, and if refreshed by a shower or two in April or May, will yield a second crop in autumn.

45. In about a fortnight or three weeks after germination the ground should be hoed, cleaned, and freely loosened round the roots, and all superfluous plants thinned out. In about another fortnight or three weeks it may be either ploughed between the rows or again hoed. If ploughed, which is always beneficial, by so well loosening and airing the soil, it should subsequently get when the first flowers begin to open, a second hoeing, especially if weedy and foul. From that time little more is required as the plants are then sufficiently advanced to keep down the weeds, and beyond their untidy appearance, receive little injury from them.

46. After the autumn crop is picked the ground should be deeply ploughed between the rows and well exposed to the air before the monsoon rains set in, and when done, if they have been abundant, may be again ploughed and afterwards hoed and cleared of such weeds as the rains may have brought up. The plants will then shoot afresh and bear another year.

47. In the interior the second crop is seldom good, scarcely worth the cost; on the coast, so far as yet known, the case seems to be otherwise, as the second, and even third year's plants appeared better than the first, which, however, I thought partly owing to injudicious cultivation during the first year. Experience is wanted on this point.

48. In picking the crop care should be taken not to mix injured or discoloured locks, as
their

their admixture greatly deteriorates the good cotton. Equal care should be taken not to mix any withered leaves, as they cannot be afterwards removed, and are most injurious, greatly deteriorating the value of even the best cotton, as unfitting it for the manufacture of the finer fabrics.

49. Subjoined is a list of those parties to whom I have supplied seed during the past two years, and those who have applied for the seed recently arrived from home.

Coimbatore, 12 May 1852. (signed) *Robt. Wight*,
Superintendent Cotton Experiments.

LIST of Parties supplied with COTTON SEED.

	MEXICAN.	BOURBON.
	<i>Lbs.</i>	<i>Lbs.</i>
Messrs. Ballard & Brice's Agent	3,000	
Capt. Onslow, Supt. Nuggur Division	2,825	
H. B. Kingsford, Esq., Vipar	656	
Sub-collector of Salem	75	
Lieut. Chauncey, Sutteamungalum	175	
J. C. Grant, Esq., Manantoddy	50	
Collector of Rajahmundry	3,000	
W. Robinson, Esq., Head Assistant Collector, Paulghat	3,000	
David Lees, Esq., Trichendore	3,000	
Captain R. L. Rielly, Madras	400	
Faure De Fondclair, Esq., Dindigul	1,000	
Mr. Cuxton, Sevacansey	1,000	
Mr. Campbell, Tutacorin	600	
Captain Robertson, Tutacorin	150	
Commissioner of Mooltan	3,500	
Rev. Mr. Johnson, Aleppee	900	
R. D. Parker, Esq., Collector of Madura	900	
Mr. Lushington, Agent to the Governor, Kurnool	900	
Ceylon Government	-	672
Bengal Government	1,500	300
Mr. Kenrick, Madras	200	100
Mr. N. Morrison, Palmanair	1,500	

LIST of Parties who have applied for the COTTON SEED just arrived from Home:

W. Robinson, Esq., Head Assistant Collector of Malabar.

H. V. Conolly, Esq., Collector of Malabar.

W. Goodwyn, Esq., Collector of Tanjore.

D. Parker, Esq., Collector of Madura.

E. Maltby, Esq., Collector of South Arcot.

F. N. Maltby, Esq., Collector of Canara.

C. Pelly, Esq., Collector of Bellary.

E. B. Thomas, Esq., Collector of Coimbatore.

Captain Cunningham, Secretary to the Commissioner of Mysore.

H. D. Phillips, Esq., Collector of Salem.

Lieut.-general Cullen, Resident of Travancore.

Shunga Warriar, Dewan of Cochin.

C. J. Bird, Esq., Collector of Tinnevely.

D. White, Esq., Collector of Nellore.

(signed) *Robert Wight*,
Superintendent Cotton Experiments.

II.
Madras.

MINUTE by the Right Honourable the President.

Dr. Wight's Report on the Government Cotton Experiments, dated 12th May 1852.

I HAVE given my best attention to the above report, and when I call to mind that it is the result of experiments embracing the long period of 11 years, and involving a very large outlay of public money, I am constrained to pronounce it to be a most meagre and unsatisfactory document, from which, in my estimation, neither conclusive information as to the past, nor instructive practical hints for the future, can possibly be obtained.

October 1849.

3 and 4 paras.

It will be observed, that Dr. Wight commences this report by admitting that up to the time he was called on to make it, nothing whatever had been done towards inducing the ryots to undertake the cultivation of American cotton, although he had been annually stating, as I understand him, to the contrary, and declaring that the success attending the Government experimental farms had had all the effect by example that was desired. He goes on to state that a series of changes have taken place within the last two years, which have led to the cultivators planting, "unless he is greatly misinformed," from 1,500 to 2,000 acres last season, and "seem as if they intended to triple the quantity this one."

5 para.

I confess I see no proofs whatever in this report of the correctness of these assertions and expectations, and with respect to "a novel extension which has been given to this experiment, which promises to yield most important results," it is to be observed, that it was, and I believe is being, solely carried on by private individuals with whom Dr. Wight has no connexion whatever.

7 para.

Dr. Wight says he is unable to account for the unwillingness so long evinced by the natives of Coimbatore to enter upon the cultivation of American cotton, but that it is quite certain it had some connexion with the existence of the Government farms, for so long as they were in full operation, no amount of inducement that he could hold out seemed to have any effect, &c. I have already in former minutes dwelt on, and I may almost say demonstrated, the evils arising from the expensive and useless experimental farms, and I am here obliged to remark, that had Dr. Wight considered the public interests as much as he would appear to have done his private ends, he might have discovered years ago the injury of which he was the chief supporter.

14 para.

It is impossible that I can devote time to point out the numerous unsupported statements and the contradictory observations which pervade this report. Dr. Wight exactly seems to me to speak and write as though he had just entered on his duties, instead of having done so 10 years ago. He tells us, that "a spirit of inquiry is abroad," and that the ryots who have "hitherto" followed the plans to which we give the preference as to the selection of soil, "now begin to perceive and appreciate" its advantages, &c.

Paras. 15 to 26.

There is nothing in the long disquisition in which Dr. Wight has indulged, as to the cultivation and qualities of American cotton, that occurs to me as worthy of comment, because it tends to no practical end. It is true he declares, that he "knows he is correct" in his opinions, and that he feels "nearly quite certain that the produce from the American cotton plant would have exceeded that from the Indian during a lapse of years." He may be "correct" and "certain," but assuredly there is no proof of these asserted facts to be found in the arguments he has brought forward, and in my judgment the first step towards the realisation of the anticipations set forth as to the extension of the American cotton plant must be the entire abolition and withdrawal of the Government agency in any shape, and those who require cotton being left to depute their own agents to make their own bargains with the cultivators on the spot.

27 para.

I have felt it to be my duty to record these brief remarks on Dr. Wight's report, to show the Honourable Court that I do not at all subscribe to its purport. There are many many other points in it regarding which I could have enlarged, but I believe it to be unnecessary to do so. I would, in conclusion, ask attention to the 43d para., which I esteem to be mere baseless theory. The fault of the whole report is, that there is nothing practical in it, from which any man anxious to learn, who had to set about cultivating cotton, whether exotic or indigenous, could do so.

28 June 1852.

(signed) Henry Pottinger.

MINUTE by the Honourable Mr. Thomas.

I AGREE entirely in these sentiments, and beg to refer to my former minute, 19th May last, upon this subject. Dr. Wight appears to me to establish the important fact, that a Government agency prohibits private enterprise,* and that its continuance is therefore injurious to the interest alike of the consumers and the producers; and further, that all that is really required is a purchaser on the spot, ready to give a fair remunerating price to the ryots for the article he wants. Para. 27.

30 June 1852.

(signed) J. F. Thomas.

* Para. 7, "So long as the Government farms were in operation no amount of inducement that I could hold out seemed to have any effect," &c.

(No. 661.)

Para. 1. THE Right honourable the Governor in Council resolves to forward the above report, together with the minutes which have been recorded upon it, to the Honourable the Court of Directors by the next mail.

2. The Governor in Council thinks it unnecessary to follow Dr. Wight through the various topics discussed in the report. He would only bespeak the serious attention of the Honourable Court to the admissions made by the superintendent of cotton farms in paras. 7 and 27 of his letter. First (para. 7), that "so long as the cotton farms were in full operation, no amount of inducement which could be held out had any effect in stimulating the natives to engage in the cultivation of American cotton;" and, secondly (para. 27), "that all that is now wanted to secure the rapid extension of the cultivation of the plant is a steady market, and moderate competition among merchants, to convince the growers that it is really in demand." It will thus be seen that the effect of the government agency has been rather to retard than to advance the cause which it was intended to promote, and that its further continuance is confessedly unnecessary. All, it is allowed, that is now required, is a purchaser upon the spot, ready to give a fair remunerating price to the ryot for his cotton; and, in the opinion of the Governor in Council, this object can only be attained by affording full scope to private enterprise, and abstaining from all intervention upon the part of Government, which can but prove injurious both to the producer and the merchant.

(signed) T. Pycroft, Secretary to Government.

Fort St. George,
6 July 1852

REVENUE LETTER from Madras, dated 7 August 1852, No. 39.

WITH reference to our letter in this department, dated 8 July last, No. 35, we have the honour to forward to you the accompanying copy of a further letter from Dr. Wight, Superintendent of cotton experiments, bearing date the 15th ultimo, together with the minutes which we have recorded thereon, and copy of the memo. referred to in the Minute of our President.

Cons. 10th Aug.
1852, Nos. 13 to
17.

EXTRACT Fort St. George Revenue Diary Consultation, of 10 August 1852.

Received the following Letter from Dr. R. Wight, Superintendent Cotton Experiment, Coimbatore, to T. Pycroft, Esq., Secretary to Government, Fort St. George.

Sir,

I HAVE the honour to acknowledge the receipt of Extract of Minutes of Consultation, No. 661, under date 6th July 1852, which seems to require some explanation, as I cannot help thinking an erroneous inference has been deduced from the two passages quoted from the report to which it refers.

Considerable stress is laid on the statement in my report, to the effect, that no amount of encouragement which could be held out had the effect of inducing the ryots to engage in the cultivation of American cotton, so long as the farms were in full operation. This fact is, perhaps, a little too strongly stated, as we were, each successive year, enabled to purchase a few bales of native-grown American cotton, but in the main it is correct.

While I felt called upon to state the fact simply as it stands, I did not deem myself at liberty to assign the cause for their so holding back, in a report which the Honourable Court might think it desirable to publish, fearing that by doing so I might give persons so disposed a handle for drawing conclusions disadvantageous and most unjust towards the Indian Government. But now, viewing the statement in the light thrown upon it in the minute, I deem explanation necessary, to guard the Government and Honourable Court against attributing it to other than the true cause; namely, a belief on the part of the ryots that all the trouble and expense was being incurred, not for their benefit, but with a view to raising their rents so soon as it was ascertained that the new cotton could be successfully cultivated by them. This statement was not made in so many words, as here set down, but it was made in terms quite clear enough not to be misunderstood, thus plainly implying that they were distrustful of the uprightness and honour of our intentions towards them. So far as I am aware, they never have had ground for entertaining such suspicion, but still the correctness of our translation of their language is confirmed by the fact of their systematically holding back, until they saw what they considered good reason for believing their suspicions groundless and unjust. Since then they have engaged in the work with energy and intelligence, and it is my belief have succeeded beyond their own expectations.

Previous to that time it could not be foreseen what turn the business would take, and neither, I believe, would it have taken the turn it has done had we not been on the spot to purchase their produce at liberal prices, and encourage them to go on by reiterated

II.
Madras.

assurances that the Government had no thought of deriving other than indirect advantage from their labours. But for the fortunate circumstance of our being here, it is my firm belief that the cultivation of New Orleans cotton would have nearly ceased in the district with the crop of 1849, in place of which I have already this season distributed 400 maunds of seed, and may perhaps have applications for half as much more; though that is doubtful, as, under the circumstances I am about to state, the extension of cultivation of this cotton seems to have received a check, though not, I hope, of much importance.

The inference deduced from the two clauses of my report quoted in the minute as deserving the serious attention of the Honourable Court, is, it appears to me, only partially correct. About six or seven months ago I came to nearly the same conclusion, and have acted on it; but had I done so sooner the Right honourable the Governor in Council would have had good cause for blaming me for acting prematurely, and without due consideration of all the circumstances of the case, thereby giving the natives grounds for questioning our probity.

About seven or eight years ago an agreement was entered into between the Government and the ryots, according to which the former, to encourage the cultivation of American cotton, agreed to purchase, at a fixed rate, all the latter offered for sale, the rate agreed upon being 20 rupees the candy for what is called "first sort," viz., clean, well picked cotton. This agreement had never been cancelled. This rate (20 rupees per candy), so long as the English market ruled above $5\frac{1}{4}d.$ per pound,* was advantageous to both parties; but when it fell below $4\frac{1}{4}d.$ the merchant sustained a loss. When Mr. Campbell purchased the gin-house high prices ruled in Liverpool, and he entered on the business retaining our terms. Within a few months after he came into possession, and before the season for purchasing cotton had arrived, the English prices had declined so much that had he lived, he must have been a loser by his bargain.

The only other merchant here being under no such engagement offered what he considered a fair price, from 16 to 17 rupees the candy. To this the growers objected, and came to me urging that I had given them the seed, which they undertook to cultivate under the assurance that they were to receive from 19 to 20 rupees the candy for their first sort cotton, but that now they were offered only from 16 to 17, which of course they must either accept or have their cotton cast on their hands, unless I continued for another year our long-standing agreement, which had never been cancelled; intimating, at the same time, that unless I did so, it was the last crop of American cotton they would grow.

After impartially weighing all the circumstances, I could not but admit that they had justice on their side; and further, duly considering that should any act of mine have a tendency to excite the impression that the Government was disposed to leave them to their fate during a season of distress and difficulty, I might in a single hour have not merely undone all that years of labour and anxious study to gain their confidence had accomplished; I might have revived and strengthened their early and unjust suspicions, and given rise to all the evil consequences of confirmed distrust. Had I so acted, so grave an error of judgment might well have entitled me to the severest reprehension of Government and the Honourable Court. Under these circumstances, I had no alternative but to resume my duty as the Government agent, to purchase cotton as before, and, fortunately, Minutes of Consultation, No. 702, under date the 14th July 1851, para. 5, not merely authorised, but ordered me to do so. But in doing so I availed myself of the opportunity it afforded of cancelling the long-standing agreement, by intimating to every seller that the Government had now fulfilled all its engagements with him, and that for the future, if he cultivated New Orleans cotton, he must take his chance of the market the same as with his opum (native cotton), for that I would not again purchase cotton except under the renewed orders of Government.

Acting on these views, I believe, succeeded in retaining the full confidence of the parties principally interested, all of whom, so far as I have heard, admit that they have got fair warning, and understand that for the future they act on their own responsibility and risk in growing this kind of cotton; and under the knowledge that a risk in the matter of finding purchasers exists, there has been fewer applications for seed this year than last. This is shown and accounted for in the subjoined letter of Mr. Robinson, Head Assistant Collector of Malabar, which of itself proves that even now we are somewhat premature in withdrawing the support of Government from those more adventurous men who are now showing the way. But at the same time I do not think, now that it has severed its connexion with them, that it ought again to renew it, if that can possibly be avoided without inflicting a severe injury or injustice on the parties concerned.

(signed) Robert Wight,
Superintendent Cotton Experiment.

Coimbatore, 15 July 1852.

* At $5\frac{1}{4}d.$ per pound, the merchant will realise a profit of about 14 per cent.; and at $4\frac{1}{4}d.$ sustain a loss of three per cent. At 16 rupees the candy and $4\frac{1}{4}d.$ per pound he will realise a profit of 12 per cent.

(No. 102—1852.)

II.
Madras.From *W. Robinson, Esq.*, Head Assistant Collector of Malabar, to *R. Wight, Esq.*,
Superintendent of Farms, Coimbatore;

Sir,

In acknowledging your letter, dated — instant, and enclosure, I have the honour to refund the advance I received to enable me to pay for cotton sent to you.

Rs. 240. 4. Two hundred and forty rupees and four annas.

I have spent unavoidably Rs. 9. 12. as per margin,* on the distribution of seed, and the itinerant collector of the cotton, which I trust you will sanction.

The last season was a very unfortunate one here, and the crop failed so much as to disappoint the growers; and the proclamation of your inability to receive cotton again next year has had the effect of greatly discouraging our ryots. Till now, yours has been our only market for the article American cotton.

I have, however, done what I can to restore confidence (the production has not yet taken full root in these parts), and hope that cotton will still be grown; but I should like much to hear from you as to a market. To what market are your Coimbatore ryots looking? In the meantime, I will keep such as I am acquainted with, informed of the state of the crop.

(signed) *W. Robinson,*
Malabar, Head Assistant Collector's Office,

Hd. Asst. Collr.

Paulghat, 1 July, 1852.

(No. 14.)

MEMORANDUM from the Secretary to Government.

ONE of the first propositions made by Dr. Wight† on taking charge of the Government experimental farm in 1842, was to hold out inducement for extending the cultivation of the native cotton on the American system, by the purchase from the cultivators, at a fair market rate, of a portion of their crop.‡ The Honourable Court of Directors saw no objection to the arrangement, if limited in its operation to the fair carrying out of the experiments, beyond which object, they observed, it should not be permitted to extend.

Again, in his letter of 13th November 1844, Dr. Wight solicited authority to purchase at a fixed \$ price American (seed) cotton grown by the natives, from seed distributed by Government, and urged the plan as the only thing wanting to establish the general cultivation of American cotton among the natives. The Government|| drew the attention of the Honourable Court to the proposition. In reply,¶ the Honourable Court expressed themselves favourable to the scheme, and authorised its adoption for a period of three years, the purchasers being limited in amount, so as to be divested of the character of commercial speculation.

Para. 19, et seq.

Again, on the 26th November of the same year 1845, the Honourable Court, referring to the results of the cotton sent from India, and to the opinions given by parties in England of its quality and value, considered it “very desirable that a conclusive result should be arrived at respecting East India saw-ginned cotton by the importation of five or six thousand bales of it at one time,” and on this subject referred this Government “to paras. 9 and 10 of their despatch, dated 8th October (No. 20) 1845.”

Rev. Des. 26th
Nov. 1845, No. 2.

In their letter of the 4th July 1848 (No. 11),** the Honourable Court, while declining on special grounds to accede to Dr. Wight's proposal for a remission of 50 per cent. of the assessment of all lands cultivated with American cotton, observed that there was already sufficient inducement for extending the cultivation of this cotton by the permission given to Dr. Wight to purchase the produce from the ryots on account of Government at remunerating prices, and they desired at the time that these purchases should not be discontinued.

In their letter of the 5th September 1849, No. 12, the Honourable Court advert to the above despatch, and observe that the order of this Government “to desist from making any further purchases of cotton on behalf of Government” was not warranted by the instructions previously communicated.

Para. 13.

In the letter from this Government, dated 23d September 1851, No. 55, para. 9, the instructions of the Honourable Court were solicited as to the expediency of continuing these purchases, now that the farm had been sold to Mr. D. Campbell, and there were experiments being prosecuted by other parties.

(signed) *T. Pycroft,*

29 July 1852. Secy. to Govt.

	Rs. a. p.
* Cost of distributing seed	4 12 14
Batta to a peon for 2 maunds, at 2½ rupees per maund	5 - -
	9 12 -
Cash received	250 - -
Balance now refunded	Rs. 240 4 -

† From Dr. Wight, 14th March 1842, para. 6.

‡ Revenue Despatch, 29th July 1842, paras. 8 and 9.

§ An average price of 20 rupees the candy.

|| Extract Minutes Cons., 27th January 1845, p. 3.

¶ Revenue Despatch, 8th October 1845, No. 20, p. 9, 10.

** Revenue Despatch, 4th July 1848, No. 11, p. 3.

II.
Madras.

(No. 15.)

MINUTE by the Right Honourable the President.

(Letter from Dr. Wight, No. 787, dated the 15th of July 1852.)

I HAVE read and considered the above letter with much attention, but I am compelled to say that I can perceive nothing tangible or practical in it, or any thing that requires refutation.

Dr. Wight seems to me to modify his arguments and shift his position purely to meet his own assertions, and to strive to show that his presence has been the sole cause that has hitherto prevented the cultivation of American cotton from falling into total disuse; whereas the conclusion that I arrived at very early, and which every succeeding stage of the discussion has tended to strengthen, is that his interference on behalf of Government has done great harm, by keeping private speculators out of the field, and causing, as it were, the ryots to cultivate under fictitious and unauthorised assurances.

The memorandum drawn up by the Secretary to Government, which is in circulation with Dr. Wight's letter, demonstrates that the chief assumption in that letter is erroneous; I mean with regard to the terms to be offered to the growers of American cotton; and I am not at all prepared to accept his explanation as to the distrust of the ryots, which kept them from exerting themselves for a series of years. It is almost superfluous to observe, that, even admitting the correctness of this explanation, but which I do not by any means, it is an additional proof of the mischief caused by the agency of which Dr. Wight has all along been the strenuous, and I believe I may say, sole supporter.

Copies of Dr. Wight's letter, of this minute, and of the memo. from Mr. Secretary Pycroft, should be sent to the Honourable Court, by the next opportunity.

30 July 1852.

(signed) Henry Pottinger.

(No. 16.)

MINUTE by the Honourable Mr. Thomas.

I AGREE entirely in these views, and wholly distrust the supposed cause assigned by Dr. Wight for the backwardness to cultivate American cotton. I believe it to be imaginary, and that the true cause is, the want of a certain or remunerative market, combined with the evils of a Government Agency.

2 August 1852.

(signed) J. F. Thomas.

(No. 17.)

No. 17.

ORDERED, that a copy of the foregoing papers be forwarded to the Honourable the Court of Directors by the first opportunity.

Fort St. George,
6 August 1852.

(signed) T. Pycroft,
Secy. to Govt.

Revenue Department, 7 January (No. 1) 1852.

Our Governor in Council at Fort St. George.

Shipment of cotton
seed, per "Bra-
zilian."

WE transmit herewith a bill of lading for 784 bags of New Orleans cotton seed, consigned to you on the ship "Brazilian," from Liverpool. This seed is represented to be of superior quality, and we desire that you will dispose of it in such manner as you may deem most advantageous, either by selling it at a moderate price to such parties as may be willing to purchase it, or, if that cannot be effected, by distributing it gratuitously to ryots who will undertake to cultivate it.

London,
7 January 1852.

We are, &c.
(signed) J. Shepherd,
J. W. Hogg,
&c. &c. &c.

EXTRACT Revenue General Letter from Madras, dated 26 October 1852
(No. 58.)

Para. 11. WE furnished a copy of this despatch* to Dr. Wight, superintendent of cotton experiments, and requested him, in communication with the Collectors of the cotton-growing districts, to arrange for the disposal of the large supply of "New Orleans cotton seed," consigned to this Government on the "Brazilian" in the manner desired by your Honourable Court, reporting in due course what he might have done in pursuance of those orders. His reply and our orders thereon accompany.

12. We also informed the Board of Revenue of the above supply of cotton seed, and of our instructions for its disposal.

EXTRACT Fort St. George Revenue Cons. of 25 May 1852

READ the following letter:

From Dr. R. Wight, Superintendent Cotton Experiments, Coimbatore, to T. Pycroft, Esq.,
Secretary to Government, Fort St. George.

Sir, I have the honour to acknowledge the receipt of your letter of the 17th inst.

WITH reference to Minutes of Consultation, No. 232, under date 9th March 1852, I have the honour to state that I addressed to each Collector and several other parties a circular, accompanied by a copy of the above minute. Sixteen of those addressed have replied, all, with one exception, applying for seed; some for more, some less, but evidently all for experiment, and, apparently, to be instituted at the risk of the parties applying.

Under these circumstances, I feel somewhat at a loss how to act on the subject of charging for the seed. My own impression is that it should be distributed, not sold, as many may thereby be induced to engage in the cultivation who might not otherwise feel disposed to do so, and who, having once commenced cultivating, may be induced to go on, much to the public advantage. As, however, this is a point on which I have no authority to act, I beg leave to solicit the instructions of Government.

Coimbatore, 6 May 1852. (signed) Robt. Wight,
Superintendent Cotton Experiments.

No. 29.

(No. 468.)

THE Right Honourable the Governor in Council resolves to refer Dr. Wight to the despatch of the Honourable Court of Directors, communicated to him on the 9th March last, and will leave it to his discretion to sell the cotton seed or distribute it gratuitously, according to the circumstances of the several applications made to him.

No. 30.

Fort St. George,
25 May 1852.

(signed) T. Pycroft,
Secretary to Government.

Revenue Department, 20 July (No. 3) 1853.

Our Governor in Council at Fort St. George.

1. WE entirely approve† your having declined to entertain the proposal of Dr. Wight that all the cotton grown by the ryots in Tinnevely, from American seed, should be purchased at a fixed rate by the Government. There are now, it appears, individuals connected with Manchester settled in the district, and if the price at which the ryots can afford to sell the cotton is greater than it suits the purpose of those parties to give, it is hopeless to attempt to force the cultivation by factitious encouragement on the part of Government.

2. The

* From the Hon. Court, dated 7 January 1852, No. 1.

† Letter, dated 5 June (No. 26) 1852; letter, dated 8 July (No. 35) 1852; letter, dated 7 August (No. 39) 1852.

II.
Madras.

2. The statement of Dr. Wight, that since the relinquishment of the Government farms in Coimbatore, the ryots have taken to the culture of American cotton on their own account, to an extent considerably greater than during their existence, would seem to imply that the time had arrived when the interference of Government could properly be withdrawn. All that is now wanted, you observe, is a purchaser on the spot ready to give a fair remunerating price to the ryot for his cotton, and in your opinion, this object can only be attained by affording full scope to private enterprise, and by abstaining from all intervention on the part of Government.

3. In our despatch of the 4th July (No. 11) 1848, we directed that the purchases of American cotton on the part of Government should not, at that time, be discontinued; observing, however, "We are satisfied that no satisfactory and permanent extension of the cultivation of American cotton will be attained, until the persons most interested in its production shall take the matter into their own hands, by locating in the districts competent agents empowered to purchase from the cultivators such cotton as may be produced of a description suited to the wants of the manufacturers in this country."

4. We are of opinion that a sufficient period has elapsed since the date of these instructions for the course of proceeding indicated in them to be adopted. and that, if the inducements to engage in the purchase of Indian grown American cotton for use in this country are still insufficient, a further perseverance in our efforts to force the cultivation by means apart from the ordinary operations of commerce, can lead to no beneficial result. We accordingly think that we may properly withdraw from the market as purchasers of American cotton, and we hereby convey to you our authority for gradually relinquishing all direct interference in the culture of cotton of that description, in the hope that it has now reached a point where it may be safely left to private enterprise.

We are, &c.

London, 20 July 1853.

(signed) R. Ellice.

J. Okphant.

EXTRACT REVENUE LETTER from Madras, dated 1 November 1853, No. 76.

3. Your honourable Court will observe, from our resolutions of the 9th April and 29th June last, that on Dr. Wight's departure from the country we desired that no fresh purchases of cotton should be made, and arranged for the experiments being brought to a close in both districts. Orders were issued for the disposal of the small quantity of cotton and cotton seed, and Dr. Wight's office furniture, remaining in Coimbatore, and the services of the only writer of Dr. Wight's establishment who had been retained, have been since dispensed with. In Tinnevely the Collector was instructed to dispose of the cotton seed on hand; to clean and ship for England the cotton which he had still in store, and to close the farming operations by the end of the past Fusly 1262 (1852-53). He was also desired to dispose to the best advantage, of the stores and implements belonging to the farm, those of ordinary description being sold off immediately for what they would realise, and the more expensive machinery offered by advertisement in the official "Gazette," at what might appear fair prices in reference to their original cost and present condition.

4. The Collector of Tinnevely having just reported that all the Government cotton that remained in his district has been sent to England (the last shipment being that by the "Kohinoor" of which you were advised, under date 7th September 1853), and that there are no further consignments to be made, the operations connected with the experimental cultivation of cotton, at the Government expense in this Presidency, may be regarded as finally closed.

EXTRACT Fort St. George Revenue Diary to Consultation of 15th April 1853.

RECEIVED the following letter:

From Dr. *R. Wight*, Superintendent Cotton Experiments, Coimbatore, to *T. Pycroft*, Esq.,
Secretary to Government, Fort St. George.

Sir,
SUBJOINED I have the honour to transmit copy of a letter, received two or three days ago, from Mr. Edgeworth, Commissioner of Mooltan, requesting to be supplied annually with a quantity of cotton seed for distribution in that district.

No. 24.

For the current year he can be supplied with any quantity, there being a considerable stock on hand; but, as I believe it is the intention of Government altogether to discontinue experimental operations, I purpose writing to that effect, and informing him that, beyond the present season, we shall not be able to meet his wishes.

With a view to complying with the requisition for the present season, I have directed Mr. Rabel, the office writer, now at Madras, to return to Coimbatore as speedily as he can, and despatch two candies of seed with the least possible delay, and having done so, to deliver over the office and records to the Collector, and receive all further orders from him.

I have, &c.

(signed) *R. Wight*,
Superintendent Cotton Experiments.

Madras,
4 March 1853.

(No. 29.)

From *M. P. Edgeworth*, Esq., Commissioner and Superintendent, Mooltan Division, to
R. Wight, Esq., M. D., Superintendent Cotton Experiment, Coimbatore, *via* Bombay.

Sir,

I HAVE the honour to inform you that the cotton seed supplied by you last year at my request was distributed by me among the people in the several districts under the Mooltan and Leia divisions.

2. The cultivators are much pleased with it, and anxious for an increased supply. As this appears to me a very important measure, I should feel obliged by your making arrangements for sending a large annual supply; as large as the Government will sanction carriage free by the Indus steamers, till the district be able to keep up its own supply. It should be so arranged as to reach this by the boat arriving in March or April.

I have, &c.

(signed) *M. P. Edgeworth*,
Commissioner and Superintendent.

Commissioner's Office, Mooltan Division,
28 January 1853.

From Dr. *R. Wight*, Superintendent Cotton Experiments, to *T. Pycroft*, Esq.,
Secretary to Government, Fort St. George.

Sir,

ADVERTING to my letter of the 4th instant, I have the honour to request that the Collector of Coimbatore may be instructed to disburse whatever charges may be incurred in forwarding the cotton seed from Coimbatore to the Commissioner of Mooltan, and also for the screwing and shipping expenses of 37 bundles of Government cotton that are now waiting tonnage at Cochin, in the godowns of the agent of B. Sappoorjee, Esq.

No. 25.

I have, &c.

(signed) *R. Wight*,
Superintendent Cotton Experiments.

Madras,
8 March 1853.

II.
Madras.

(No. 396.)

No. 26.

Para. 1. *Resolved*, That the foregoing letters be forwarded to the Collector of Coimbatore, with instructions to defray the charges which may be necessary for the transmission of the seed applied for by the Commissioner of Mooltan, and also for the cotton awaiting shipment at Cochin.

2. It is observed that, under date 19th June 1851, Dr. Wight reported the sale of all the property connected with the experimental cotton farm in Coimbatore, except the office furniture and some cotton seed; and on the 7th August following reported that he had discharged the whole of his establishment except one writer. Since that date, Dr. Wight has been making purchases of cotton for transmission to the Honourable the Court of Directors, and further supplies of cotton seed have been received from home.* The Government have not, however, been informed by Dr. Wight before his departure of the quantity of cotton seed which he had still on hand, nor whether he had made any arrangements for its distribution; neither are they aware whether, besides the cotton awaiting shipment at Cochin, there are further consignments to be made to the United Kingdom. They resolve to call upon the Collectors of Coimbatore and Tinnevely to state what quantity of cotton seed they have in charge, and how they would propose to dispose of it; as also whether they have any cotton purchased by Dr. Wight, or expect to receive any under engagements made by that gentleman.

3. The Government, under dates the 8th July and 7th August 1852, have forwarded to the Honourable Court, Dr. Wight's general report on his operations, and his supplementary remarks. Pending the Court's reply, no fresh purchases of cotton will be made; but the Collectors of Coimbatore and Tinnevely will fulfil any engagements for the purchase of cotton, which may have been already made by Dr. Wight with the ryots and others. They will also furnish seed to parties who may apply for it, purchasing it, if necessary, from the ryots. The Collector of Coimbatore will inform the Commissioner and Superintendent of Mooltan, that such supply as he may require will be sent to him annually from Coimbatore, so long as the seed is procurable in that district. It does not appear to Government that the writer hitherto retained by Dr. Wight can longer be required, and if not, Mr. Thomas will at once discharge him, submitting his claim to a gratuity should he seem entitled to any. He will also dispose of Dr. Wight's office furniture, or such part of it as may not still be wanted.

4. The Collector of Tinnevely will report the condition and prospects of the cotton cultivation which is being carried on in his district at the public expense, and give his opinion whether it be desirable to continue operations, and if so, under what arrangements; and if not, at what time the concern may be properly closed

Fort St. George,
9 April 1853.

(signed) T. Pycroft,
Secy. to Government.

EXTRACT Fort St. George Revenue Diary to Consultation of 29 April 1853.

28th March—RECEIVED the following letter :

(No. 65.)

From C. J. Bird, Esq., Collector of Tinnevely, to Sir H. C. Montgomery, Bart.,
Chief Secretary to Government, Fort St. George.

Sir,

No. 11.

1. DR. WIGHT having retired from the service, I have the honour to request, with reference to the accompanying copy of a letter from the Accountant-general, dated 15th instant, that you will be good enough to instruct me, as to whether, or to what extent, purchases of cotton are to be made in this district during the coming year, on account of Government, and shipped to England.

2. I beg also to be informed through what channel, the accounts, &c., in the department of experiments for the improvement in the culture of cotton are to be submitted to Government for the future.

Tinnevely, Trichendoor,
21 March 1853.

(signed) C. J. Bird,
Collector.

* Court's despatch, 7th January 1852: 784 bags of New Orleans cotton seed sent out by the "Brazilian."

(No. 1046.)

Financial Department.

From Sir *Vansittart Stonhouse*, Bart., Accountant-General, to *C. J. Bird*, Esq.,
Collector of Tinnevely.

Sir,

I HAVE the honour to request that you will furnish me, by the end of next month, with a prospective estimate of the amount which may likely be required from your treasury during the next official year 1853-54, for purchasing cotton on account of Government; exhibiting also in the same estimate, by a separate and distinct entry, the amount which may be required during the same period for defraying the charges which are debitable to the head "Expenses on account of improvement in the culture of cotton."

(signed) *T. V. Stonhouse*,

Fort St. George, Accountant-General's Office,
15 March 1853.

(No. 453.)

1. The Government observe that their orders in respect to the future purchases of cotton for shipment to England have been passed in Extract Minutes of Consultation, 9th instant, No. 396.

No. 12.

2. With respect to the second of the inquiries made by the Collector, that officer will submit his accounts connected with the experimental cultivation of cotton in his district to Government, through the Board of Revenue.

(signed) *T. Pycroft*,

Fort St. George,
23 April 1853.

Secretary to Government.

EXTRACT Fort St. George Revenue Consultation of 29th April 1853.

Read the following letter:

(No. 4.)

From *E. B. Thomas*, Esq., Collector of Coimbatore, to Sir *H. C. Montgomery*, Bart.,
Chief Secretary to Government, Fort St. George.

Sir,

WITH reference to the accompanying copy of a letter from Dr. R. Wight, late superintendent of cotton experiments, dated 9th instant, I beg the orders of Government as to the cotton writer, Mr. Rabel, as he alone knows the voluminous records of Dr. Wight's office, (and references thereto for information and accounts are likely to arise for some time to come), I would request to be allowed to continue him for the present, no one else being retained on the establishment.

No. 47.

(signed) *E. B. Thomas*,

Avenashey,
14 March 1853.

Collector.

From Dr. *R. Wight*, late Superintendent of Cotton Experiments, to *E. B. Thomas*, Esq.,
Collector of Coimbatore.

Sir,

I HAVE the honour herewith to transmit a list of records appertaining to the Cotton Experiments Office, which Mr. Rabel, the writer, is directed to transfer to your office; also copy of an official memo., directing the return to Coimbatore of himself and the peon whom I directed to accompany my office; and lastly, a memorandum accounting for rupees (30) thirty, which I have directed the writer to expend; 15 on account of expenses incurred in the transmission of a quantity of cotton seed required by the Commissioner of Mooltan, and 15 advanced for his travelling expenses; but to be repaid from the first pay drawn from your office.

(signed) *R. Wight*,

Madras,
9 March 1853.

Late Supt. of Cotton Experiments.

II.
Madras.

(No. 478.)

No. 48.

ORDERED, that the Collector of Coimbatore be referred to the orders contained in Extract Minutes of Consultation, 9th instant, No. 396, para. 3; and that he be informed that it is the desire of Government that Mr. Rabel, the writer attached to the late experimental cotton farms, be discharged at the earliest period at which his services can be dispensed with; but he is on no account to be continued beyond the 1st January 1854.

Fort St. George,
29 April 1853.

(signed) *T. Pycroft*,
Secretary to Government.

EXTRACT Fort St. George Revenue Consultation of 13 May 1853.

READ the following Letter:

(No. 21.)

From *E. Rowden Power*, Esq., Colonial Secretary, Colombo, to the Chief Secretary to Government, Fort St. George.

Sir,

No. 53.

I AM directed by his Excellency the Governor to transmit to you the annexed copy of a letter, and of its enclosures, received from the Superintendent of the Royal Botanic Garden here, and to request that you will be pleased to move the Right Honourable the Governor in Council to give directions for a supply of fresh Sea Island cotton seed being sent to Ceylon about the period named in Mr. Thwaites' communication.

Colonial Secretary's Office,
Colombo, 21 April 1853.

(signed) *E. Rowden Power*.

(No. 10.)

From *G. H. K. Thwaites*, Superintendent, to the Honourable the Colonial Secretary, Colombo.

Sir,

I HAVE the honour to enclose copies of letter, No. 68, from the Government agent of the Western Province, with a letter, No. 49, from the Assistant Agent at Ratnapoora, annexed; and with reference to their contents, I would suggest that, as owing to the last season here having been very unfavourable for cotton, I have no quantity of seed to send to Ratnapoora, it might be desirable for application to be made from your office to the Secretary to Government at Madras for a supply of fresh Sea Island cotton seed to arrive at Colombo about the time required.

Royal Botanic Garden, Peradenia,
2 April 1853.

(signed) *G. H. K. Thwaites*,
Superintendent.

(No. 68.)

To the Superintendent of the Botanic Garden, Peradenia.

Sir,

IN forwarding herewith copy of a letter, No. 49, of the 19th instant, from the assistant agent at Ratnapoora, I have the honour to request that you will be good enough to provide me with a fresh supply of Sea Island cotton seed, and favour me at the same time with your views as to the best mode of extending the cultivation of that article in the Kolana Corle of the Saffragam District. You will perceive the assistant agent appears of opinion that the experiment should be on a large scale; there could be no objection to this, if the proper mode of cultivation were known; merely cultivated, after the manner of the country, in chenas, I can scarcely doubt that the experiment would only result in failure.

Government Agent's Office, Colombo,
22 March 1853.

(signed) *Chas. P. Layard*,
Government Agent.

(No. 49.)

Sir,

I HAVE the honour to inform you that the cotton seed received in the small packet referred to in your letter of the 17th instant turns out rotten, moth-eaten and useless; this is however of the less consequence, as the season for cotton planting does not begin till November; I would also beg to point out that if it is considered desirable to supersede the present

present worthless native plant, by the introduction of the more valuable Sea Island cotton, it will be requisite that the people should be furnished with seed in much larger quantities, as the few plants raised from a small quantity make no impression, and soon die out, not being considered of sufficient importance to be preserved.

I have directed the ratemahatmea to collect all the seed that can be procured from the trial plants; and I would suggest, that as the sowing will not take place for six or eight months there will be time to send to England for a large parcel of really fresh seed, for unless the natives are furnished with it in sufficiently large quantity I have no hope that they will think it worth their while to incur the labour of cultivation and watching which this product requires.

To effect any lasting benefit at least five or six cwt. should be sent for distribution about the month of October.

Assistant Government Agent's Office,
Ratnapoora, 19 March 1853.

(signed) *E. L. Mitford*,
Assistant Agent.

(True copy.)
(signed) *Chas. P. Layard*,
Government Agent.

(True copy.)
(signed) *G. H. K. Thwaites*,
Superintendent.

(True copies.)
(signed) *E. Rowden Power*.

(No. 533.)

RESOLVED, that the Collector of Coimbatore be requested to comply, as far as may be in his power, with the application of the Ceylon Government for a further supply* of fresh Sea Island cotton seed, and to report to Government what he may have done in pursuance of this order. No. 54.
* 5 or 6 cwt.

Fort St. George, 13 May 1853.

(signed) *T. Pycroft*,
Secretary to Government.

EXTRACT Fort St. George Revenue Diary Consultation of 24th June 1853.

Received the following:

(No. 226.)

EXTRACT from the Proceedings of the Board of Revenue, dated 26th May 1853.

No. 22.

Read the following:

To *W. H. Bayley*, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

GATHERING from extract from the Proceedings of the Board of Revenue, dated the 11th instant, annexed to extract from Minutes of Consultation of 9th idem, requiring a report from me on the condition and prospects of the cotton cultivation, &c. in this district, that, in the absence of a successor to *Dr. Wight*, superintendent of cotton farms, all accounts, &c., connected with the cotton experiments in this district requiring the sanction of Government, should be transmitted through the Board of Revenue, I have the honour to forward the undermentioned two statements, which I request may be submitted to Government for sanction.

	Rs.	a.	p.
1. Statement of contingent charges incurred by Mr. Cuxton in charge of the gin house at Shevacausey during the 1st quarter of 1853, amounting to - - - - -	37	1	4
2. Account particulars of expenses incurred by Mr. Cuxton in the purchase, &c., of six bales of cotton shipped on the 25th January 1853, on the barque "Fairlie," bound for London - - - - -	59	1	9

Tinnevely, Trichendoor,
28 April 1853.

(signed) *C. J. Bird*,
Collector.

Resolved, that the foregoing letter with its enclosures be submitted for the orders of the Right Honourable the Governor in Council, with reference to paragraph 2 of the order of Government, dated 23d April 1853. In Cons. 12 May 1853.

II.
Madras.

The Board recommend that sanction be granted for the charges incurred by Mr. Cuxton in the purchase of six bales of cotton shipped for London, and the contingent charges for the 1st quarter ending 31st March 1853, as per two accounts particular, amounting in all to Rs. 96. 3. 1. (rupees ninety-six, annas three, and pie one.)

(signed) *W. H. Bayley*,
Secretary.

(No. 656.)

No. 23.

THE Right Honourable the Governor in Council sanctions the charges incurred by Mr. Cuxton in the purchase, &c. of six bales of cotton shipped for London, and the contingent charges for the 1st quarter ending 31st March 1853, amounting in all to Rs. 96. 3. 1. (rupees ninety-six, annas three, and pie one.)

Fort St. George, 16 June 1853.

(signed) *T. Pycroft*,
Secretary to Government.

EXTRACT Fort St. George Revenue Consultation of 5th July 1853.

Read the following letter :

(No. 241.)

From *B. Cunliffe*, Esq., Sub-Secretary to the Board of Revenue, to Sir *H. C. Montgomery*, Bart., Chief Secretary to Government.

Sir,

No. 34.

1. WITH reference to Extract Minutes of Consultation, dated 9th April 1853, I am directed by the Board of Revenue to submit for the information and orders of the Right Honourable the Governor in Council the accompanying letters * from the Collectors of Coimbatore and Tinnevely, respecting the cotton experiments, &c. in their districts.

2. In Coimbatore there are no further consignments of cotton remaining to be made to the United Kingdom, nor any to be received under engagements made by Dr. Wight; there are also no agreements with the ryots yet to be fulfilled, about 17 candies of cotton seed remain on hand, for distribution to the ryots gratis, and about 200 lbs. of cotton wool, which Mr. Thomas proposes to dispose of by public auction.

3. As the office furniture alluded to in para. 5 of Mr. Thomas' letter is required for his establishment, the Board recommend that he be allowed to retain it as requested.

4. The orders of Government respecting Dr. Wight's writer have already been communicated to the Collector.

5. The Collector of Tinnevely reports that, of the 70 bags of New Orleans cotton seed received by him, 20 bags were supplied to Mr. Cuxton, of the Sevacausey Government farm, 25 were distributed to ryots, and the remainder is still on hand. Mr. Cuxton has also with him about 2,400 lbs. of this seed, besides that contained in about 8,000 lbs. of unginned cotton. The ryots being averse to engage in the cultivation of cotton from this seed, and there appearing no other method of disposing of the quantity on hand, the Board agree with Mr. Bird that it might be transmitted by dhoney to Bombay, and thence to the Commissioner of Mooltan.

6. The Board observe that the Commissioner has applied for New Orleans seed, as stated in the letter from Government, 9th April 1853; but it would be well perhaps to ascertain if that officer is prepared to receive what is not required at Tinnevely.

7. As it does not appear from Mr. Cuxton's report that there is sufficient inducement to continue the cultivation of cotton from the New Orleans seed at the public expense, the Board concur with the Collector that it should be given up at the end of the fusly, about which time the leases of the fields will expire, and the property in store, as per list, be disposed of to the best possible advantage.

8. The Collector suggests that Mr. Cuxton be rewarded with a gratuity. The Board are not aware what his past services have been, but they would recommend that he be allowed such a gratuity as the Government may think him deserving of.

Revenue Board Office, Fort St. George,
6 June 1853.

(signed) *B. Cunliffe*,
Sub-Secretary.

* From Coimbatore, 2d May, in Cons. 6th June 1853; from Tinnevely, 9th May, in Cons. 6th June 1853.

To *W. H. Bayley*, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

1. ADVERTING to the first para. of Extract from Minutes of Consultation of the 9th ultimo (No. 396), received with the Board's Proceedings of the 11th idem, I have the honour to state for the information of the Board, that the charges incurred for the transmission of the seed applied for by the Commissioner of Mooltan, and also for the cotton awaiting shipment at Cochin, will be defrayed and adjusted in the accounts of this office as directed.

2. It appears there are no further consignments to be made to the United Kingdom, nor any cotton to be received under engagements made by Dr. Wight; neither are there any agreements with the ryots yet to be fulfilled.

3. About 17 candies of seed remain on hand, and this will be furnished to ryots gratis, to enable us to keep up a supply of seed. There are also 200 lbs. of cotton wool in the godowns, which will be disposed of by auction, and the proceeds carried to the credit of Government.

4. As desired in para. 3 of the Minutes of Consultation above quoted, the Commissioner and superintendent of Mooltan has been informed that such supply of seed as may be required will be furnished annually, so long as it is procurable in this district.

5. The office furniture referred to would only sell for a small amount, and as it is required for my establishment it will be retained accordingly. I beg also to be permitted to avail myself of the services of Dr. Wight's writer for some short time yet, as requested in my communication of the 14th March last to Government.

(signed) *E. B. Thomas*,
Collector.

Coimbatore,
Collector's Office, Ootacamund,
2 May 1853.

To *W. H. Bayley*, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

WITH reference to Extract from Minutes of Consultation of 9th ultimo, prefixed to Extract from Proceedings of the Board of Revenue, dated the 11th idem, I have the honour to inform you, that of the 70 bags of New Orleans cotton seed, ex "Brazilian," received by me in August last, 20 bags were supplied to Mr. Cuxton at the Sevacauey Government farm, and 25 bags have been distributed to ryots on their application, and the remaining quantity is still on hand. I have been told by Mr. Cuxton that he did not find this seed so good as the produce of his own cultivation.

2. From Mr. Cuxton's report of 28th ultimo, of which copy is enclosed, it will be seen that there were then 2,400 lbs. of New Orleans seed remaining in his hands, besides that contained in 8,000 lbs. of unginned cotton.

3. I am at a loss to advise how this seed should be disposed of, for the ryots appear to regard the introduction of New Orleans cotton cultivation as a failure, and show no inclination to engage in it. The best way, perhaps, would be to forward it by dhony to Bombay, for the purpose of being transmitted to the Commissioner of Mooltan.

4. The condition and prospects of the cotton cultivation which is being carried on in the district at the public expense, may be gathered from Mr. Cuxton's report, above referred to. The leases of the fields will expire about the end of the fusly, and the plants will, about the same time, have yielded all their produce. This farm is so small, and has had so much superintendence, that if New Orleans cotton could be made to flourish at Sevacauey, the experiment could not have remained, as it has to this moment, something more than doubtful. My opinion has, therefore, long been made up that it should be given up, and the end of the present fusly would be a convenient time to relinquish it.

5. If this be resolved upon there will be a considerable sacrifice of property, which is not of a kind to sell here for its real value (*vide* enclosure to Mr. Cuxton's letter), and Government may, I hope, deem Mr. Cuxton's past services deserving of being rewarded with a gratuity.

(signed) *C. J. Bird*,
Collector.

Tinnevely, Trichendoor,
9 May 1853.

II.
Madras.

(No. 1.)

To C. J. Bird, Esq., Collector of Tinnevely.

Sir,

In reply to memo. from your office, under date the 18th instant, I beg to state that the quantity of New Orleans seed on hand amounts to about 2,400 lbs., and that of New Orleans seed cotton to 8,000 lbs.

In reply to the question as to whether any cotton has been contracted for on account of Government, I have to state that none such has been entered into, and was never sanctioned by Dr. Wight (late superintendent of cotton experiments), further than this, that those who took New Orleans seed from the gin-house were always assured that if they chose to bring the cotton produced to the gin-house, it would always be purchased of them at a rate by two rupees in advance of the then selling price of the native (oopum) cotton. Not having received any instructions this season for purchasing oopum cotton, none has as yet been bought on Government account.

With reference to the information called for in para. 4 of the Minutes of Consultation accompanying memo. from your office, I have to state that the leases for the lands at present under cultivation will expire as follows: for the 8⁴⁹/₁₂₈ red land at the end of June 1853; for the 7³⁷/₆₄ chains black land at the beginning of August; and for the No. 2 garden on the 24th August next.

With regard to the present aspect, &c. of the plants on those lands, I have to state that those on the 7³⁷/₆₄ chains land and the No. 2 garden, being now nearly two years' old plants, the early crop on them is now almost off, and they look as though they had done their work for the second season; but in consequence of sundry good falls of rain which have lately come down, and now continue to do so, and on account of which the plants may still blossom and bud, and as their lease does not expire for a good while yet, I think that they might be kept on for the space of one month more, if no longer. The plants on the red land being but those for the first season now going on, and being young and vigorous, and bearing well, this land would fully bear to be kept on for half or one month beyond the lease, to which the owners could be brought to consent without any further expense being incurred about the same. Such, I beg to state, is a fair report of the state of the crops on the fields now under cultivation on Government account.

Herewith I beg to forward a list of Government property now contained in the Sevacauey gin-house.

Sevacauey, 28 April 1853.

(signed) R. M. Cuxton.

(No. 715.)

No. 35.

1. THE Right Honourable the Governor in Council permits the Collector of Coimbatore to retain for the use of his own establishment the office furniture belonging to the late experimental farm in that district, but desires that they may be brought upon his official returns.

2. The Board of Revenue will instruct the Collector of Tinnevely to offer to the Commissioner of Mooltan as much of New Orleans cotton seed remaining on hand as he may wish to take. The Government have no information to show whether the quantity of unginned cotton in store, viz. 8,000 lbs., has been grown in the Government farm, or obtained by purchase, and they think that in either case the Collector should have it cleaned, and shipped to the Honourable Court, similar to previous consignments, and the farming operations finally brought to a close at the end of the fusly. The stores and implements belonging to the farm should be disposed of to the best advantage, those of ordinary description being sold off immediately for what they will realise, and the more expensive machinery offered by advertisement in the official Gazette, at what may appear fair prices in reference to their original cost and present condition.

3. The Collector of Tinnevely will, in communication with the Collector of Coimbatore, furnish a report on the nature and extent of Mr. Cuxton's services, when his claim to a gratuity will receive consideration.

(A true extract.)

Fort St. George,
29 June 1853.

(signed) T. Pycroft,
Secretary to Government.

EXTRACT Fort St. George Revenue Consultation, 5 July 1853.

Read again letter from the Colonial Secretary at Colombo, dated 21st April, and recorded in Consultation 13th May 1853.

(No. 545.)

Read also the following letter:

(No. 8.)

(No. 8.)

From *E. B. Thomas*, Esq., Collector of Coimbatore, to *T. Pycroft*, Esq., Secretary to Government, Fort St. George.

Sir,

1. ADVERTING to the Minutes of Consultation (No. 533,) dated 13th ultimo, I have the honour to state that the only exotic cotton seeds procurable in this district, are Bourbon and Mexican, 17 candies of the latter description (received from Dr. Wight's office,) are now at my disposal, and will be supplied to the Ceylon Government if required, but I fear it is old and not worth seeding

2. A reference to the records of the cotton experiment shows that the cultivation of Sea Island cotton in this district has proved nearly a total failure,* and that this kind of cotton, together with others enumerated in the margin,† is cultivated at Trichendore, in Tinnevely; and I would suggest an application being made to the Collector of that district for the seed referred to.

Coimbatore Collector's Office, Ootacamund, (signed) *E. B. Thomas*,
18 June 1853. Collector.

No. 102.

(No. 742.)

RESOLVED that the letter from the Ceylon Government, dated 21st April, and its enclosures, be forwarded to the Collector of Tinnevely, with a request that he will arrange for the supply of five or six cwt. of Sea Island cotton seed to that Government, if procurable in his district, reporting what he may have done in pursuance of this order. If he cannot procure Sea Island seed, he will inform this Government, for communication to that of Ceylon, whether he can obtain cotton seed of any other of the foreign varieties, and in what quantities.

Fort St. George, (signed) *T. Pycroft*,
5 July 1853. Secretary to Government.

No. 103

EXTRACT Fort St. George Revenue Diary to Consultation of 12 July 1853.

Received the following letter, dated 5th July:—

(No. 1387.)

From *J. J. Franklin*, Esq., Secretary Marine Board, to Sir *H. C. Montgomery*, Bart., Chief Secretary to Government, Fort St. George.

No. 1.

Sir,

The Government, in Extract from Minutes of Consultation, marginally noted, directed the Marine Board to receive 784 bags of New Orleans cotton seed ex Brazilian, and hold the same at the disposal of Dr. Wight. 467 bags were distributed under this gentleman's directions, and there now remain in the Marine Godown 317 bags, which are becoming damaged and destroyed by rats. Dr. Wight having left for England without issuing any further instructions regarding the residue, I am directed to solicit orders as to its disposal.

Madras Marine Board Office, (signed) *J. J. Franklin*,
5 July 1853. Secretary.

9th March 1852,
No. 232.

(No. 778 A.)

RESOLVED that the New Orleans seed referred to in the above letter be offered to the Ceylon Government, and that the following letter be despatched accordingly.

No. 2.

Fort St. George, (signed) *T. Pycroft*,
7 July 1853. Secretary to Government.

(No. 779.)

From *T. Pycroft*, Esq., Secretary to Government, to the Colonial Secretary at Colombo.

Sir,

¶ Para. 1. I am directed to acknowledge your letter of the 21st April 1853, and in reply to state that immediately on its receipt, reference was made to the Collector of Coimbatore, who reported that he had no Sea Island cotton seed in store. The only other district in which it is likely to be obtained is Tinnevely, and the Collector has been directed to forward five or six cwt. direct to your Government, should he be able to procure any.

No. 3.

I am desired to add that this Government have at Madras 317 bags of New Orleans cotton seed, and they will be happy to furnish the Ceylon Government with any portion of this quantity that they may require.

Fort St. George, (signed) *T. Pycroft*,
7 July 1853. Secretary to Government.

* Vide Dr. Wight's letter to the Secretary Agri-Horticultural Society, Calcutta, 23d October 1850.

† Mexican or New Orleans, Egyptian, Brazilian or Pernambuco.—Vide Dr. Wight's letter to Government, 12 May 1852, paras. 30 and 33.

II.
Madras.

EXTRACTS Fort St. George Revenue Diary to Consultation of 30th August 1853.

8th. RECEIVED the following letter:

(No. 164.)

From *C. J. Bird*, Esq., Collector of Tinnevely, to *T. Pycroft*, Esq., Secretary to Government, Fort St. George.

Sir,

No. 1.

WITH reference to Extract from Minutes of Consultation, under date the 5th ultimo, I have the honour to report, for the information of Government, that no Sea Island cotton seed is procurable in this district. As regards seed of any other foreign varieties, I beg to state that there are now at Tutacurin about 25 bags of New Orleans cotton seed remaining of the quantity received in August last from England, ex "Brazilian," and which I suggested in my letter of 9th May might be sent by sea to Bombay for transmission to the Commissioner of Mooltan; but this seed is reported by Mr. Cuxton* to have proved on trial to be a sad failure, and consequently I am now of opinion that to transmit any of this seed either to Ceylon or to Mooltan would only be a waste of money. I would rather recommend it should be sold for what it will fetch on the spot.

2. There are besides the above about 8,000lbs. of New Orleans cotton seed at Sevacausy, the produce of the Government farm at that place, which is believed to be of good quality, and can be offered, if it appear advisable to Government, to the Government of Ceylon, or transmitted to the Commissioner at Mooltan.

(signed) *C. J. Bird*,
Collector.Tinnevely Tencausey,
1 August 1853.

(No. 971.)

No. 2.

Resolved, That the foregoing letter be transmitted to the Ceylon Government, and that Mr. Bird be requested to forward, on application, any portion of the 8,000lbs. of New Orleans cotton seed, stated to be of good quality, which that Government may be desirous of taking. Such quantity as may not be taken by the Ceylon Government may be offered to the Commissioner of Mooltan.

2. *Resolved* also, That the Collector of Tinnevely be instructed to sell off, for what it may realise, the cotton seed remaining from the supply received ex "Brazilian," which he reports to be of doubtful quality.

(signed) *T. Pycroft*,
Secretary to Govt.Fort St. George,
26 August 1853.

26th. SENT in consequence the following letter:

(No. 973.)

From *T. Pycroft*, Esq., Secretary to Government, to the Colonial Secretary at Colombo.

Sir,

No. 3.

1st August 1853,
No. 164.

WITH reference to my letter of the 7th ultimo, No. 779, I am directed by the Right Honourable the Governor in Council to forward copy of one from the Collector of Tinnevely, and to state that the Collector has been instructed to furnish direct to your Government, on application, any portion of the 8,000lbs. of New Orleans cotton seed, stated to be of good quality, which the Ceylon Government may be desirous of taking.

2. I have to add that the New Orleans cotton seed at Madras, referred to in my last letter (7th ultimo), is of the same consignment as that reported on by Mr. Bird in the 1st para. of his letter, and it is, therefore, to be feared that it would be of no use to your Government.

(signed) *T. Pycroft*,
Secretary to Govt.Fort St. George,
26 August 1853.

EXTRACT Fort St. George Revenue Consultation of 20 September 1853.

READ the following letter:

(No. 182.)

From *C. J. Bird*, Esq., Collector of Tinnevely, to Sir *H. C. Montgomery*, Bart., Chief Secretary to Government, Fort St. George.

Sir,

No. 29.

HAVING been advised by the principal Commissary of Ordnance at Fort St. George, under date 22d instant, of the despatch by sea of two cotton gins, for delivery to Messrs. Longshawe & Co., I have the honour to request instructions as to what is to be done with them on arrival, as Messrs. Longshawe have left the country and proceeded to England, in pursuance of their intention, which was reported to you in my letter of 18th April last.

Tinnevely, Tencausey,
30 August 1853.(signed) *C. J. Bird*, Collector.

* Late in charge of the Government cotton farms in this district.

(No. 1066.)

The Collector of Tinnevely will receive the two cotton gins intended for Messrs. Longshave & Co., and will make them over to any cotton growers, or cotton merchants in his district, European or native, who may be disposed to receive and work them.

Fort St. George,
20 September 1853.

(signed) *T. Pycroft*,
Secretary to Government.

II.
Madras.
No. 30.

EXTRACT Fort St. George Revenue Diary to Consultation of 18 October 1853.

Received the following :

(No. 456.)

EXTRACT from the Proceedings of the Board of Revenue, dated 3 October 1853.

No. 13.

READ the following letter :

From the Collector of Tinnevely to *B. Cunliffe*, Esq., Acting Secretary to the Board of Revenue, Fort St. George.

Sir,

WITH reference to extract from the Proceedings of the Board of Revenue, dated the 19th instant, I have the honour to report, for the information of Government, that all the Government cotton that remained at Shevacausey has been already shipped, and there are no further consignments to be made to the Honourable Court.

(signed) *C. J. Bird*,
Collector.

Tinnevely, 24 September 1853.

Home Department. Revenue. No. 15 of 1847.

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

WE have the honour to transmit the accompanying letter and its enclosures from the Government of Fort St. George, and to recommend the suggestion of that Government for granting to Mr. Finnie, the American cotton planter in Tinnevely, an addition of 200 rupees per mensem to his present allowances, amounting to 535 rupees per mensem, as per margin.*

I have, &c.

(signed) *T. H. Maddock*,
F. Millett,
F. Currie.

Fort William, 16 October 1847.

(No. 1033.)

From Sir *H. C. Montgomery*, Bart., Secretary to the Government of Fort St. George, to
G. A. Bushby, Esq., Secretary to the Government of India.

Sir,

REFERRING to the correspondence noted in the margin,† I am directed by the Most Noble the Governor in Council to transmit for the consideration and orders of the Government of India, copy of a letter from the acting Collector of Tinnevely, giving cover to one from Mr. J. Finnie, the American cotton planter stationed in that district, applying for an increase to his allowances.

Revenue
Department.

2. Mr. Finnie's proceedings, as detailed by himself, in the opinion of Government give him title to consideration, and his Lordship in Council recommends that his case may be viewed favourably, and a suitable addition made to his allowances.

3. Mr. Finnie draws at present the allowances authorised by the extract Minutes of Consultation, dated 31st October 1845, a copy of which was furnished to the Government of

	ACTUALLY DRAWN IN		
	April.	May.	June.
	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>
Salary - - - - -	250	250	250
Tent allowance - - - - -	80	80	80
House rent - - - - -	20	20	20
Horse allowance - - - - -	30	30	30
Batta, at five rupees per diem -	150	155	150
TOTAL - - - <i>Rs.</i>	530	535	530

† To Government of India, 31 October 1845, No. 1266; from Government of India, 20 December 1845, No. 936; dated 28 August 1847, No. 203.

II.
Madras.

* Two hundred.

of India in the letter of the same date, and which, from a memorandum obtained from the Civil Auditor's Office, range from 530 to 535 rupees per mensem, his Lordship in Council would suggest an addition of 200* rupees to these allowances.

I have, &c.

(signed) *H. C. Montgomery,*
Secretary to Government.

Fort St. George,
21 September 1847.

(No. 203.)

From *F. B. Elton*, Esq., Acting Collector, Tinnevely, to *J. F. Thomas*, Esq., Chief
Secretary to Government, Fort St. George.

Sir,

I HAVE the honour to forward an original letter from Mr. Finnie, soliciting an increase in his allowances, for the consideration of Government; and beg to add, that although the question is not one with which I have any immediate concern, I hope it will not be considered out of place if I state the satisfaction it is to me to be in official connexion with a person of Mr. Finnie's intelligence and general superiority, and that I consider he has shown great zeal and devotion to his duties in setting going the present establishment for ginning cotton at Aroopocottah. I should also be very sorry, as Collector of Tinnevely, that any thing should occur to cause a change in the officer holding the situation of cotton planter here; and I think length of service in a situation of this nature, in an experiment which it is obviously most desirable to carry on to a final issue, both increases the value of Mr. Finnie's services, and may be considered to constitute a fair claim to increased allowances.

I have, &c.

(signed) *F. B. Elton,*
Acting Collector.

Tinnevely Collector's Office, Courtullum,
28 August 1847.

From *T. J. Finnie*, Esq., Cotton Planter, to *F. B. Elton*, Esq., Acting Collector, Tinnevely.

Sir,

WHEN I entered upon the duties of the situation which I have the honour to occupy under Government, I applied to be placed on a different footing, in point of allowances, to that of the late Mr. Morris, whose emoluments had been granted with reference to the amount allowed by the Bombay Government to the planters under that Government.

2. The Most Noble the Governor in Council kindly made a special reference to the Government of India on the subject, and the Honourable the President in Council was pleased to recommend that I should for the present be content with the terms offered; but intimated that the Government would be prepared to consider the question of increasing my allowances in some proportion to the fruits of my exertions, and that ultimate success would meet the reward originally held out by the Honourable Court of Directors, &c.

3. Since the date of my employment here, I have used my best exertions to accomplish the object in view; and though I think myself I have effected but little good up to this time, as I have not produced a superior article of cotton on terms that would justify mercantile transactions, and until that is effected I maintain we fail, however well we succeed in producing a few pounds or a few bales at a price that would not remunerate the merchant. Though I think I have failed thus far to effect the object, I have used the means, and have got the business now in train, that will determine the matter one way or the other in a comparatively short time, and at little expense.

4. I have given my best attention to the subject, and I am getting up statistics which will, I think, correct the vague notions so universally entertained on the subject. While I am thus candid as to my own operations, I may ask, who has done more than I have in effecting the desired improvement? I have, like others, produced some good American cotton, and, without the aid of an engineer, have erected the gins, and have cleaned all the cotton I could procure this year; still I, perhaps unfortunately, taking a commercial view of the subject, am far from considering success attained, while others, looking at the subject merely as a Government experiment, are disposed to think very favourably of the progress made. The experiment will inevitably do good, by placing the matter before the people in plain, simple form; and though the natives may not at once enter heartily into the measure, they may ultimately do so. Of one thing I am certain, viz. that success depends on the adoption of a plan by the people themselves, who must be coerced by the European merchants refusing to take any but the good clean article, which will have the effect of improving it without greatly increasing the price; and the accomplishment of this object, it is obvious, will require

require time, particularly in this country, where we have not only to introduce new modes, but counteract established custom, and root out prejudice; and I do not therefore consider it quite fair that an individual should wait for his reward for faithful exertion in effecting so important a national object, particularly when success depends so essentially upon the changes wrought in the political condition of so stubborn and unchangeable a race as the ryots of India.

5. I have laboured long in the hope of that reward, which induced me to leave home, and I am willing to continue to labour; but my present emoluments will not justify me, in this country, in making any definite plans for the future, which is the only cause of dissatisfaction I have to urge.

6. The cotton agency, which I was permitted to establish in connexion with my official duties, has not answered expectation, in consequence of the connexions already existing between the distant and resident agents, and it is only by the incidental changes that I shall be able to make it productive. From the encouragement afforded me by my correspondents, I think much might ultimately be effected by the agency; but, in the meantime, time rolls on, and individuals may pass away, and the nation alone reap the reward of their labours.

7. I may remark, that since the 1st of January the only planter now left in the Bombay Presidency has been drawing upwards of one-half more than I am allowed here; and when it is recollected that I, as the agent of the Honourable East India Company, employed that planter to aid me in carrying out the business in which I so heartily entered, it may well be considered that I have been unfortunate in promotion. I do not mention the proceedings of the Bombay Government as a precedent; I desire that a question be decided on its own merits.

8. I earnestly hope the Most Noble the Governor in Council will be pleased to consider the matter, and, if I deserve it, increase my allowances on that scale of liberality so proverbially bestowed on faithful servants. I make no demand nor complaint, but trust to the liberal views of Government; and when it is recollected that mine is an uncertain situation, and the business laborious, requiring much exposure to the elements, my request and expectations, I hope, will not be considered unreasonable; and the fact, that I am the only planter left in the Presidency will, I hope, be in my favour, as the acts of Government towards me create no precedent.

9. The decision which Government may arrive at is of the first importance to me, and I earnestly hope that the onerous, but to me pleasing, duties I have to perform, and the importance of the result, whatever it may be, will ensure the favourable consideration of His Lordship in Council.

I have, &c.

(signed) *Thomas James Finnie,*
Cotton Planter.

Camp Courtallum,
16 August 1847.

(No. 968.)

From *G. A. Bushby*, Esq., Secretary to the Government of India, to *Sir H. C. Montgomery*,
Bart., Secretary to Government, Fort St. George.

Sir,

I AM directed by the President in Council to acknowledge the receipt of your letter, No. 1,033, dated the 21st ultimo, and to state that a recommendation has this day been made to the Honourable Court, for granting to Mr. Finnie, the American cotton planter at Tinnevely, an addition to his present allowances of 200 rupees per mensem.

Home Depart-
ment.
Revenue.

I have, &c.

(signed) *G. A. Bushby,*
Secretary to the Government of India.

Fort William,
16 October 1847.

Revenue Department, 19 January (No. 3) 1848.

Our Governor in Council at Fort St. George.

Para. 1. WE have received a letter from the Government of India, dated the 16th October last (No. 15), forwarding, with their recommendation, an application submitted to them by your Government for an increase to the allowance of Mr. Finnie, the American cotton planter, at present stationed in the district of Tinnevely.

	<i>Rs.</i>
Salary - - - -	250
Tent allowance - - - -	80
House rent - - - -	20
Horse allowance - - - -	30
Batta - - - -	150
TOTAL - - -	<i>Rs.</i> 530

2. The allowances now drawn by Mr. Finnie consist of the items enumerated in the margin, and amount to 530 or 535 rupees per mensem. You have suggested an addition of 200 rupees per mensem to this amount, and the Government of India concur in the propriety of the measure.

3. We have recently had under our consideration the allowances assigned to the American cotton planters under the Bombay presidency, and we have resolved to grant them a consolidated salary of 700 rupees (seven hundred) per mensem, to include all allowances whatsoever, except 5 rupees per diem when travelling beyond the limits of the district to which they may be attached, for two years certain, and until that Government may think proper to dispense with their services.

4. It is desirable that the allowances of all the American cotton planters employed under our orders should be fixed on the same scale, and we accordingly authorise you to apply the same rule to Mr. Finnie, the increase to take effect from the 16th October last, the date on which it was recommended to us by the Government of India.

We are, &c.
(signed) *H. St. G. Tucker.*
J. L. Lushington.
&c. &c. &c.

London, 19 January 1848.

EXTRACT Revenue Letter to Fort St. George, dated 7th March (No. 17) 1847.

Para. 4. THE Consultations noted in the margin* contain the periodical Reports furnished by Mr. Finnie of his proceedings in the Tinnevely district, and the various propositions submitted by him for conducting the experimental culture of cotton, with the views and opinions of Dr. Wight on the subject, and of the final orders of Government thereon.

5. From our resolution of the 10th August last, your Honourable Court will observe that we permitted Mr. Finnie to act as an agent for the purchase of cotton. We conceded this authority, with the view of giving him the utmost practicable advantage in carrying on his experiment, and hoped it would be the means of augmenting his influence amongst the cotton growers. We gave Mr. Finnie clearly to understand that this measure was experimental, and that his purchases, as an agent, were to be confined to cotton ginned and prepared on the American principle, as it was obvious that the object in view could be attained only by extending the market for cotton of a superior quality, and prepared in a superior manner. We, at the same time, instructed the acting collector of Tinnevely to communicate to us his views, after a sufficient period for the trial of the experiment had elapsed, as to the effect of the license to purchase conceded to Mr. Finnie, and especially to ascertain and report whether it had enabled the ryot to obtain a better price for his cotton, and led to increased growth of a superior article.

6. At a subsequent date (28th August) Mr. Finnie, in submitting his views on the use of cotton gins, in comparison with the thrasher, requested permission to act as a general agent for the supply of the best cotton, cleaned and prepared, as nearly as practicable, on the American principle, and to connect himself with some house of agency. Being of opinion that such practical experiments as those proposed by Mr. Finnie should have a full and fair trial, we were induced to grant him the permission solicited.

* Cons. 11 August 1846, Nos. 18-20. Cons. 1 September 1846, Nos. 16, 17. Cons. 22 September 1846, Nos. 8, 9. Cons. 6 October 1846, Nos. 3, 4. Cons. 3 November 1846, Nos. 33-36. Cons. 17 November 1846, Nos. 26, 27. Cons. 22 December 1846, Nos. 11, 12. Cons. 5 January 1847, Nos. 4, 5, 6, 7, 20, 21. Cons. 12 January 1847, Nos. 7, 8, 16, 17. Cons. 9 February 1847, Cons. 16 February 1847. Cons. 2 March 1847.

To *E. P. Thompson, Esq.*, Secretary to Government, Fort St. George.

Sir,

1. I HAVE the honour to report, for the information of the Most Noble the Governor in Council, that,

2. In pursuance of the plan proposed in my report, under date 26th January, I proceeded to that portion of the district which is blessed with the rain from S. W. monsoon, as soon as it was safe to do so after rain had fallen, which is the signal of the dispersion of the malaria which prevails during the dry weather in the neighbourhood of the hills which separate the Malabar and Coromandel coasts, with the intention of proving, as far as possible, the capabilities of the large area of country thus peculiarly situated for the production of the New Orleans variety of cotton. With the view of bringing the matter immediately before, and interesting the people directly in it, my first object was to induce some of the most influential ryots to plant an acre or two each on their own account, according to my directions; for I am thoroughly convinced that the only mode of introducing substantial and lasting improvements in this country is by engaging the people in the operation. By this means some permanent good may be achieved for the people, and a real indirect advantage to Government may reasonably be expected to accrue. If the people adopt a new course of procedure in their agricultural operations, and produce the raw material, whether cotton, sugar, or any other article, it is not only reasonable to suppose, but it is a positive fact, which I have tested by close management and strict economy for years, that the article, whatever it may be, can be produced much cheaper than any European, with all his skill and capital, can produce it by the "neeze," or hired labour system of cultivation, in which there are innumerable opportunities for speculation on the part of all who are employed in the business; and I know it to be impossible that any article which the plains of India produce can be grown at a profit to the capitalist under that system, as those who undertake it will find to their cost.

3. In case of obstinate resistance on the part of the people, I intended to procure and plant 30 or 50 acres myself, with the means available to the people, and indeed by the people themselves, at a fixed rate for each hoeing and each ploughing separately; but I am happy to say, that seeing the readiness with which many have entered into my views by planting on their own account, this plan was altogether abandoned. I arrived here on the 1st instant, and let the people know my object; on the 3d, some of the most respectable came to me for an explanation on the subject, and expressed some doubts and fears to my ultimate object. They thought I wanted to get possession of their land, and then keep it; this I assured them was not the case, and that all I wanted was that they themselves should try the experiment on a small scale the first year, and if it succeeded, they could then increase it; and so far from wishing the land, I assured them that my name should never be written in the Thasildar's books for land, if they would do as I directed them. Then they urged the fear that as soon as Government finds the new cotton will grow, additional taxes would be levied upon their land (!!) This I of course assured them was not the object of Government, and should not be case; that the object was merely for their benefit. The arguments I adduced, and the kind conciliating tone I observed towards them, at length convinced them that I was sincere in my desire to serve them, and all appeared satisfied. But then the difficulty of what they should do with the new cotton if it was grown in any quantity here arose to their minds; they said there was no native market for it, and it was not worth their while to produce an article which they could not sell, &c. &c. All these arguments were put forth with shrewdness and forethought on their part. This last home-thrust I had no authority to parry or provide against, but to counteract their objections I took the responsibility of telling them, that I would find a market for all they could produce; that Government would not trade in the article, but that others would; and if they produced the quality I wanted I would take it off their hands at the real value of the article here. This satisfied their scruples, and they entered heartily into the measure, and we all went out and planted a little piece of ground, about two acres, which I had selected for the purpose, I sowing the seed and using the hoe to cover them myself, until I taught them to do it; I took a few bushes from the hedge and constructed a rude harrow, to show them that the seed could be covered more expeditiously in that way, which they perfectly well understood. They expressed their surprise that a gentleman should work as I did, and were anxious to relieve me of the labour; but I told them we would all work together, which delighted them much, and they sowed the seed and covered them as I directed, until the land was all planted. They were all well pleased, and insisted upon my going to see the land they intended to plant, to which I readily consented, and we set out walking through the fields, the party increasing in numbers as we went, until it consisted of 50 or 60 people, all anxious to adopt the new plan, and asked for seed. Some, who lived out of the influence of the S. W. monsoon, said they would plant when their rains set in; all took a few seed to plant about their houses, until they could prepare the land for sowing more. Some said they would plant largely, but I explained that it was a mere experiment, and we could not tell how it would succeed, and told them they had better content themselves with a little until they saw how far it was likely to realise their hopes. This caution increased their confidence, and they went to work to prepare land, but the rain was incessant until a few days ago, which prevented rapid progress in the business; one man has, however, planted two small fields, and others report that thens will be ready to-morrow.

II.
Madras.

4. These measures, I think, are likely to result beneficially; at least they will give the experiment a fair trial, and at but little cost to Government. The only way we can realise our hopes of deriving any permanent good from experiments of this kind, is by instructing the people in the essential particulars, to be modified to suit their peculiar condition. To attempt to force at once upon the people of this country the science of England and America, is like transplanting the spices, and other tropical products which grow luxuriantly in their own peculiarly mild and genial clime, to the Highlands of Scotland. The object in view, in either case, would be defeated. But though the clove and nutmeg could never be acclimated to the Highlands, yet the people of India may be brought to appreciate and ultimately to adopt a course which will increase their resources, but may still be considered very unscientific by the votaries of science, who laud to the skies their alkalis, salts, and ammonia, injected by galvanism, magnetism, or mesmerism, or some other equally efficacious "ism," without reflecting for a moment upon the cost of these, in their estimation, essentials to scientific agriculture.

5. As I understand the word science, when applied to agriculture, it is the science of applying the means at our command in such way as to insure the largest return on the amount invested, whether small or great.

6. Innumerable as are the advantages which the cotton planters of America have derived from the improvements in the cultivation of the great staple of the south, which has enabled them to more than quadruple the quantity of produce per acre within the last 15 or 20 years; and, notwithstanding the vast experience in the cultivation of the valuable article, there is a great difference of opinion among its most successful cultivators as to certain practices and modes of procedure. But while a careful analysis of the numerous successful experiments that have been made would show many points of difference, it would also show that all agree in certain particulars. Now, if such an analysis were made, the particulars in the mode of culture, in which all reports of great crops agree, might philosophically be taken as the essential points, and the particulars in which they disagree as the less essential. The great object of the planter who embarks his capital in agricultural operations, who depends upon the produce of the earth, is not only to insure a comfortable subsistence, but also the profits upon his investiture; consequently it must not enter into our plans to mystify and confound the people of this country by theories beyond their comprehension, but to place the matter before them in a plain, unmistakable, common-sense manner. We may not teach them to cultivate so scientifically as we do, but still we may aid them to such a degree that they will realise much more than we can on the capital invested.

7. If the experiments now commencing prove successful, the people will speedily adopt it in the whole area of country which gets the benefit of the S. W. monsoon, and gradually those who cultivate the common article in the country which has not that advantage, will, it is hoped, adopt the new mode of sowing in rows, to enable them to cultivate it better, by admitting a plough between them. If it fails after a fair trial, then we may give up all efforts as to the introduction of the New Orleans cotton in this part of the country, and if it succeeds in the hands of the people, all will be benefited; if it fails in their hands, it is no unimportant consideration that it cost Government nothing further than my superintendence, and the people themselves will take care that they do not lose by it.

8. My impatience at the slowness of the people, and my anxiety to see the work advance rapidly, sometimes almost gets the better of my discretion; but my plans are fixed, and I shall persevere in them.

9. I have entered into details, that Government may see at a glance all that has been done and all that is likely to be accomplished.

10. I think it would be well if some cotton was planted in the way I have adopted here, all along the foot of the hills, wherever people could be found willing to try it on their own account, all the way to Coimbatore; and I have thought of proceeding on a tour in that direction as soon as I can leave here without injury to the work now in hand, with a view of consulting with Dr. Wight, and eliciting his co-operation in the plan, which I am sure he would readily accede to. By this course we might, in a comparatively short time, greatly extend the cultivation of the article which is so much desired.

11. I cannot close this report without recording the many obligations I am under to Mr. Parker, the acting collector, for his hearty co-operation in affording me the assistance which I require without enforcing his authority, which I do not require. His subordinates, too, as usual, entering into the spirit of their superior, readily render me all the assistance they can.

12. The cotton which was planted on the 3d and 11th instant is up and growing most beautifully.

13. I hope these proceedings will meet the approbation of Government.

Camp, Courtallum,
20 June 1846.

(signed) F. J. Finnie;
Cotton Planter,

(No. 2682 of 1846.)—Territorial Department, Revenue.

To *J. F. Thomas, Esq.*, Chief Secretary to the Government of Fort St. George.

Sir,

IN acknowledging the receipt of your letter, No. 516, dated the 7th ultimo, to the address of Mr. Secretary Townsend, transmitting copy of a correspondence with Mr. Finnie, one of the American cotton planters employed under the Madras Government, and requesting to be informed if the planters under this Presidency are permitted to engage in private commercial transactions in the mode referred to by Mr. Finnie, I am directed by the Honourable the Governor in Council to state for the information of the Most Noble the Governor in Council, that such permission was accorded to Mr. Simpson, a cotton planter employed in the collectorate of Candeish, under the circumstances explained in the accompanying extracts of documents quoted in the margin,* to which I am directed to request you will draw the attention of the Most Noble the Governor in Council, as indicative of the views of this Government in granting the permission.

(signed) *R. K. Pringle,*
Chief Secretary.

Bombay Castle,
27 June 1846.

EXTRACT of a Memorandum from Mr. *Simpson*, Government Cotton Planter, dated 4 November 1845, of Points on which he wished to obtain the Orders of Government.

Para. 7. THAT I may have the privilege of purchasing cotton for any mercantile house in Bombay, whenever I may be able to do so without prejudice to the public service, and to do whatever in my opinion may tend to improve and encourage cotton culture in this Presidency.

EXTRACT of a Letter from Government to the Revenue Commissioner, N. D., dated 22 November 1845, No. 5518.

Para. 14. ON Mr. Simpson's last propositions, that he be allowed to purchase cotton for any mercantile house in Bombay, the only question which arises to his Honor in Council is, whether his doing so will forward or retard the experiment placed under him. His Honor in Council is disposed to think that it will have the former effect, for it is very desirable to create for the planters as great an influence as possible with the cotton growers. If they could become extensive purchasers, their suggestions would be more readily attended to than if they appeared merely as recommending abstractedly new modes of culture or preparation. But if the gins be found to answer, his Honor in Council thinks that it should be a condition, if the planters become mercantile agents, that their purchases should be confined solely to cotton prepared by this machine, as it would obviously be of no service to the experiment if they merely purchased for their employers the dirty, ill-prepared cotton of the country.

(True extracts.)

(signed) *R. K. Pringle,*
Chief Secretary to Government.

(No. 829.)—Revenue Department.

EXTRACT from the Minutes of Consultation, dated 10 August 1846.

READ again, letter from Mr. Finnie, cotton planter at Tinnevely, dated 16 April, and recorded in Diary of Consultation, 12 May 1846.

Read also, the following letters:—

From Mr. Finnie, cotton planter at Tinnevely.

[Here enter 20 June 1846.]

From the Chief Secretary to the Government of Bombay.

[Here enter 27 June 1846, No. 2682.]

Para. 1. The Most Noble the Governor in Council has read with much satisfaction, Mr. Finnie's report of his proceedings and their present results in Tinnevely. He entirely concurs in the view there expressed of the necessity of inducing the people themselves to co-operate in the experiment; and of so conducting it that it may be within the reach of their present means and capital.

2. If

* Extract para. 7, of memorial from Mr. Simpson, dated 4 November 1845. Extract para. 14, of Government letter to Revenue Commissioner, N. D., dated 22 November 1845.

II.
Madras.

2. If this object is steadily and practically pursued, his Lordship in Council cannot doubt of ultimate success, though the progress of improvement must be, in the first instance, slow. He approves of the course pursued by Mr. Finnie, and will be desirous of receiving full and particular details of the quantity and quality of the cotton raised under the improved system of culture, as compared with the growth on land cultivated in the usual native method.

3. Referring to the communication of the 16th April last, his Lordship in Council authorises Mr. Finnie to act as an agent for the purchase of cotton. This authority is now conceded, with the view of giving Mr. Finnie the utmost practicable advantage in carrying on his experiment; and his Lordship in Council trusts it will be the means of augmenting his influence amongst the cotton growers. Mr. Finnie will clearly understand that the measure is an experimental one, and his purchases as an agent are to be confined to cotton ginned and prepared on the American principle; as it is obvious that the object the Government have in view can be attained only by extending the market for cotton of a superior quality, and prepared in a superior manner.

4. His Lordship in Council also resolves to instruct the acting collector of Tinnevely to communicate to Government his views, after a sufficient period for the trial of the experiment has elapsed, as to the effect of the license now given to Mr. Finnie to purchase; and he will especially ascertain and report whether it has enabled the ryot to obtain a better price for his cotton, and led to an increased growth of a superior article.

Ordered, That a copy of the above resolution be forwarded to Mr. Finnie and to Dr. Wight, and that an extract of paras. 3 and 4 be transmitted to the Board of Revenue for communication to the acting collector of Tinnevely.

(signed) *J. F. Thomas,*
Chief Secretary to Government.

From Surgeon *R. Wight*, Superintendent Cotton Farms, Coimbatore, to *E. P. Thompson*, Esq., Secretary to Government, Fort St. George.

Sir,

IN the 9th para. of my letter of the 14th May 1846, adverting to Minutes of Consultation, No. 154, under date 3 February 1846, I mentioned that when I had succeeded in providing Mr. Finnie with three saw gins, I would direct him to use all possible diligence in aiding me towards complying with the call of the Honourable Court of Directors, for 5,000 or 6,000 bales of saw gin-cleaned native cotton. Since then the third gin has been dispatched, and I have had an opportunity of conversing with Mr. Finnie on the subject, explaining the Court's views in the matter, and informing him that, in accordance with the plan proposed in that paragraph, I should, with the sanction of the Most Noble the Governor in Council, send him the requisite instructions as to the manner I thought he could best aid in carrying into effect the wishes of the Court.

2. My present object in writing is to obtain that sanction; and, in the event of its being granted, to suggest the propriety of instructing the collector of the Tinnevely district to supply the funds necessary for purchasing seed cotton with which to keep his gins at work.

3. As being intimately connected with this subject, though apparently not contemplated by the Court when preparing its instructions, I may mention that it is a common practice for native dealers to mix inferior qualities of cotton with the better sorts to enable them in their dealings with European merchants to obtain higher profits. Owing to this proceeding, very few samples of the really fine qualities of native cotton reach the English market, and we are consequently ignorant of the average prices such cottons would realise.

4. Under this conviction, it occurs to me that advantage might be beneficially taken of the present opportunity to have that question satisfactorily answered by the purchase of 400 or 500 bales of the best churka-cleaned native cotton. This, after being passed through our thresher, to remove sand and other impurities, which we find usually amounts to from 3 to 4 per cent., could be baled and sent home under distinct marks to try, on a sufficiently large scale, the advantages to be derived from this proceeding.

5. Should his Lordship in Council not deem himself authorised to depart so far from the letter of the Court's instructions, I trust I shall be excused for taking the liberty of suggesting for his favourable consideration the propriety of soliciting the Court's instructions on this proposal.

Coimbatore, 28 July 1846.

(signed) *Rt. Wight*, Surgeon,
Superintendent Cotton Farms.

(No. 875.)

EXTRACT from the Minutes of Consultation, under date the 28th August 1846.

READ the following letter from Dr. Wight, Superintendent Cotton Farms, Coimbatore.

[Here enter 28 July 1846.]

THE Most Noble the Governor in Council approves of the proposition communicated in the foregoing letter, and resolves to furnish a copy of the same to Mr. Finnie, with instructions

tions to afford Dr. Wight the aid he requires for meeting the orders of the Honourable the Court of Directors, for the supply of five or six thousand bales of saw gin-cleaned cotton.

The collectors of Tinnevely and Madura will likewise be furnished with copies of the same communication, and desired to assist Mr. Finnie in the performance of this and all his duties as an agent of the Government.

(signed) *E. P. Thompson,*
Secretary to Government.

To *J. P. Thomas, Esq.,* Chief Secretary to Government, Fort St. George.

Sir, I have the honour to acknowledge the receipt of your letter of the 10th inst.

1. DR. WIGHT having informed me verbally that he should require my assistance in procuring the quantum of indigenous ginned cotton which the Honourable Court of Directors have ordered to be sent to England this year, in order to test its value in the market, in anticipation of the official orders to that effect, I have the honour to inform Government that the cotton season is now so nearly over that but a small quantity of cotton in the seed can be obtained, unless we happen to find some stored up by the chitties.

2. In lieu of ginned cotton I would respectfully suggest that 100 bales of the best cotton be purchased, and the trash separated from it by the thresher, one of which I have; I am convinced that the article will be better adapted for the English market by that process than if it was ginned, and the thresher can be worked infinitely cheaper than the gins. It does more work; can be used for a longer time during the season; we avoid all trouble with the seed, the carriage on which is most expensive, and the loss on the resale of the seed immense. I am sure that, had the Honourable Court been aware of the thresher as a cotton-cleaning instrument, they would have ordered some cotton thus cleaned to be sent also, and I hope the Most Noble the Governor in Council will be pleased to order such a quantity as he thinks right, to be purchased and prepared as proposed. This will test the relative advantages of the gin and thresher for cleaning cotton in this country.

3. I secured the thresher above alluded to, it being the only one for sale in the country; but as Government intends to supply the machinery to carry out the experiment, I shall be willing to transfer it at cost.

4. There is a small American hand gin made by Mr. Idler, of Philadelphia, to my order, expressly for the Indian cotton. The American-made gins have been found to work at less expense of labour, and turn out almost double the quantity of cotton which those made in England can accomplish. It would be a good model for the manufacture of the machines here if they are generally introduced; and if Government is disposed to take it, I shall be happy to order it from the merchants in whose hands it is at Calcutta.

5. As my operations must necessarily extend to the Madura district, that being the centre of the cotton region, I respectfully suggest that the collector there be requested to afford me such aid as I may require at his hands, which is but little further than the confidence the people feel in what I tell them, when they are aware that I am supported by the authorities.

(signed) *T. J. Finnie,*
Camp, Calookoomalay,
15 August 1846.

(No. 943.)—Revenue Department.

EXTRACT from the Minutes of Consultation, under date the 16th September 1846.

READ the following letter from Mr. *T. J. Finnie*, Cotton Planter:

[Here enter 15 August 1846, No. 931.]

THE Most Noble the Governor in Council observes with reference to para. 2 of the foregoing letter from Mr. Finnie, that Dr. Wight, in his communication of the 28th July last, suggested the purchase of four or five hundred bales of the best churka-cleaned native cotton, to be subjected to the process of the thresher, then baled and sent to England, with the view of ascertaining the advantages to be derived from this proceeding.

2. His Lordship in Council being of opinion that by such experiments the Honourable Court of Directors will have the means of estimating the real value of Indian cotton, approves of the proposition, and resolves to sanction the purchase of the quantity proposed by Dr. Wight. As, however, the cotton season is reported to be nearly over in Tinnevely, Mr. Finnie will be pleased to aid Dr. Wight in the purchase now authorised.

3. Mr. Finnie's letter will be communicated with the above orders for the information and guidance of Dr. Wight, and that officer will be further requested to submit his opinion on

the proposition of Mr. Finnie to transfer to Government his thresher and hand gin, stating distinctly if the purchase be desirable at the value required.

4. It is observed that, by the orders of Government dated 28th August 1846, No. 875, both the collectors of Tinnevely and Madura have been instructed to aid Mr. Finnie.

(signed) E. P. Thompson,
Secretary to Government.

To J. F. Thomas, Esq., Chief Secretary to Government, Fort St. George.

Sir,

1. I HAVE the honour to acknowledge the receipt of an extract from the Minutes of Consultation, No. 829, under date 10th August 1846, from which I rejoice to learn that the principle for which I have so long contended, of combining a private agency with my official duties, with a view to facilitate the success of the experiment in which I am engaged, is sanctioned.

2. I regret, however, that his Lordship in Council confines me so positively to the "cotton ginned and prepared on the American principle," which I am sure was dictated in the most liberal spirit, but I think with erroneous views regarding the practical working of the scheme; and I feel convinced that it only requires to be brought to his Lordship's notice to have the plan so modified and extended, as to embrace a wider field of operations conducted upon principles which are better suited to the condition of the people among whom and for whose benefit the experiment was instituted.

3. It may be recollected that in the 15th para. of my first report, dated 24th January 1845, I entered into some details regarding the relative advantages of the saw-gin in America and this country, and the conclusion was, that however advantageous it was to the former, it was far from promising equally beneficial results to the latter; arising, however, solely from the paucity of labouring population in the one, and the superabundance in the other, together with the difficulty and length of time it must necessarily require to change the habits and modes of the people, wedded as they have ever been to established rules, whether right or wrong, whether at variance with philosophical principles as understood by us, or involving the most egregious errors in the plainest and most commonplace affairs of their every day life.

4. I shall not wage a war of extermination upon the gin; it will be well to continue the use of the instrument, with the hope of gradually bringing it into use among the people; but my object is to induce the Government to extend the plan which is now so liberally sanctioned, in order that the benefits arising from our operations may be sooner felt by the increased facility of securing a superior article at the least possible cost to the merchant, whose profit in the present state of the market arises solely from the saving in exchange, and too often lately has it been the case that losses have been sustained instead of gains being realised by the transaction.

5. As mentioned in my report, the gin is slow in operation, and when worked by us as Government servants or as merchants, involves us in expensive management; in the seed, which we must purchase with the fibre at the same rate that both might be procured for separate; in loss in the resale of the seed, and endless speculation on the part of the subordinates of the establishment; and in the expense of carriage on a heavy article, all of which would be saved if the people worked the gin on their own account. Therefore, let my operations as a Government servant be continued as commenced, in endeavouring to induce the people to cultivate better and to adopt the use of the machine, as they may discover its advantages, which they may do gradually; but a long time must elapse before the machinery will be so extensively used as to affect the market, or give a stimulant to trade. Indeed, I think that unless other employment is found for those who now employ themselves in separating the seed from the cotton, the gins will ever find no mean competition in the old women, who at first may wring their hands, and cry "My occupation's gone!" but will grind away on their simple "churka," and in the end beat Government all hollow with all the machinery it can bring into operation. I shall be told, in reference to this, that the same argument was used on the adoption of machinery in England, or steam-boats on the Ohio and Mississippi rivers; but it must be recollected that there is a vast difference in the resources of the countries for new employment, as well as in the race of people, for adapting themselves to new situations in life. Besides, in England the people affected had no control over the raw material, as cotton for instance; but here the people have the material we want to operate upon in their own hands, and will not let us have it unless we pay a price that would enable them to make just as much without the labour of separating the seed, as they would realise if they performed the labour; and in America, in the case of the multiplication of steamers, the people who had the produce to ship soon found they could send it off on a steamboat and accompany it themselves, if necessary, hasten it to market, sell it, and return home soon to their business. They thus saved time, which they converted into money by their exertions to make more produce. The steamboats proved an advantage to them, and they gave up their old system of floating their produce down the river in flat boats, which occupied time, which to them is money. Convince the people of this country

of the value of time, and open up profitable resources of employment to them; teach them to live providently and become respectable citizens, and when all are so well employed that they cannot afford to "churka" cotton, then give them the gin; then, and not till then, will it be profitable to them.

6. * *It must be recollected that a gin, such as we have here, will only separate the seed from 750 lbs. of "cupus" (seed cotton) a day; of this quantity about five-eighths will be seed and three-eighths cotton; or about 277 lbs. of clean cotton at a cost of Rs. 1. 14. 8. per diem for labour, at which rate a gin would clean, in a month of 26 working days, 7,202, at a cost of Rs. 57. 8. (as we must pay the coolies for Sundays), besides superintendence and original capital. The ginning season lasts only about three months; the crop of Tinnevely is about 25,112,000 lbs. and would require 3,485 gins to separate the seed from the staple, giving employment to 45,805 strong labouring men, at a cost of Rs. 5,97,162. 8. The people now do the work themselves without this capital and cost. But to confine myself to my agency. Suppose I received an order for 5,000 candies, not a very large year's operation in cotton, I should have to employ 347 gins at a cost of Rs. 59,857 for labour alone to separate the seed from the fibre, independent of the cost of the machinery, the management by subordinate agents, the loss by speculation, the loss and trouble with the seed, &c. &c. &c.*

7. I am much obliged to Government for the boon so kindly conferred upon me, but I shall certainly never avail myself of it on these terms.

8. But there is a means by which we may prepare the article equally well, though not precisely "upon the American principle," that will ensure the superior quality as far as cleanliness is concerned, which it is our object to get; and which will, by facilitating the trade, enable merchants to deal more extensively in the article, give a stimulant to the cultivators, and thereby render them a real and lasting benefit.

9. *In the 16th para. of my report I alluded to the thresher as a substitute for the gin; that machine has been found to do well: it does not injure the staple, separates the dirt and trash from the cotton effectually, and saves us all trouble with the seed, and the article so cleaned has been approved of by the Bombay Chamber of Commerce; and if I ever establish an agency here on my own account it will be the instrument I should prefer, and I trust that the Most Noble the Governor will be pleased to add to the privilege already granted me, that of acting as a general agent for the supply of the best article of cotton cleaned and prepared, as near as is practicable in this country, upon the American principle, and allow me to connect myself with some house or houses of agency, that the plan may be brought into immediate active operation, instead of dragging on until I could establish a business connexion sufficient to prosecute a profitable business. Indeed, it is almost impossible to accomplish the object in view disconnected with the merchants, who reciprocate favours with their correspondents in the different markets, and facilitate commercial exchange. It is impossible for an isolated individual to trade in cotton now; he must pay the merchant's commission for which he gets nothing in return; he must pay the exchange on his money, as he cannot take goods in payment, &c. To enumerate all the advantages accruing from such an arrangement would be tedious. I can assure Government that so far from the official duties entrusted to me being neglected, it would only stimulate me to exertion, as then I should see some hope of doing some good, and accomplishing the object for which I am employed; but merely to look after a patch of cotton here and there without the means of offering the people the inducement they require to comply with my wishes, appears to me a great waste of energy and time that might be better employed in connexion with the great object in view.*

10. I doubt not that were I to represent to Government that great things could be done, that great benefit would result to the people and the Government by prosecuting the work of ginning cotton, large sums would be appropriated to that purpose; but I know well that it would lead to ultimate disappointment, and I have too much regard for my reputation as a business man to make any such representation, or to allow the Government I serve to run blindly into a scheme of operations which must be attended with great expense and no earthly benefit. I have discharged my duty in representing candidly and plainly, but positively, the true state of the case, which will not, I trust, render the communication less palatable.

11. I trust the Most Noble the Governor in Council will give the matter his serious consideration; and if I am allowed to carry on the work on a plan which seems to me to afford a reasonable hope of success, I shall gladly conduct the experiment to as successful an issue as circumstances will admit. But if I must prosecute a plan of operation which I know to be based in error, I must be relieved of all responsibility as to its ultimate results. If Government wish it, I can build fine houses, erect expensive machinery which would "astonish the natives;" but the responsibility for the difference between the debtor and creditor sides of the account current must be taken off my shoulders. On the other hand, if I am allowed to pursue my own economical course, I shall accomplish much more

* This para. is printed in *Italics*, being corrected by the substitution of another, which was again corrected in Mr. Finnie's letters of 9 October 1846, and 24 February 1848, at pages 270 and 271 respectively.

† This para. is corrected in the latter of Mr. Finnie's letters, referred to in the preceding note. See page 272.

II.
Madras.

at a very trifling expense to Government than could be effected by the enormous outlay which the exclusive ginning system will involve.

12. The objections to the gin only applies to the peculiar circumstances of this part of the country. In other parts, with fertile lands and a thin population, it will answer the purpose well.

13. There are other subjects connected with the improvement of this part of the country, which I shall take an early opportunity to bring to the notice of Government.

Camp, Palamcottah,
28 August 1846.

(signed) T. J. Finnie, Cotton Planter.

MINUTE.

I THINK it of the greatest importance that every means should be used which do not involve a heavy outlay and charge upon the Government to introduce the cotton of this country at a remunerating price into the British market, and I would give such practical experiments as those proposed by Mr. Finnie a full and fair trial.

Mr. Finnie's general views appear to me sound, and calculated to forward the great object in view. It is not by an expensive Government establishment, with a process wholly foreign to and beyond the means of the native cultivators, but by cheap processes, and by leading on the people gradually to a knowledge of their own interest in the improvement either of the raw produce, or in its preparation for the home market, that the Government can look for the desired result.

Ootacamund, 21 September 1846.

(signed) Tweeddale.

To E. P. Thompson, Esq., Secretary to Government, Fort St. George.

Sir, I have discovered an error in my estimate regarding the number of gins required for a given quantity of work and the cost of doing the work, in my letter to the Chief Secretary dated 28th August 1846, I have the honour to request you will be good enough to correct the errors. I send the sixth paragraph corrected, which I hope you will substitute for the original. I regret the error has occurred. It arose from inadvertently making the estimate of the work done in one month the basis of the calculations for three months, which of course just trebled the expense, which is in itself sufficiently large to justify my remarks upon the impracticability of the use of the gin by hand, which will be fully dwelt upon in my next report.

Camp, Seevacausey,
9 October 1846.

(signed) T. J. Finnie,
Cotton Planter.

Extract from Mr. Finnie's Report of 28 August 1846, corrected.

Para. 6.* It must be recollected that a gin, such as we have here, will only separate the seed from 750 lbs. of "cupas" (seed cotton) a day; of this quantity about five-eighths will be seed, and three-eighths cotton, or about 277 lbs. of clean cotton, at a cost of rupee (1. 14. 8.) one, annas fourteen, and pies eight per diem for labour, at which rate a gin would clean in one month of 26 working days 7,202 at a cost of rupees (57. 8.) fifty-seven, and annas eight (as we must pay the coolies for Sundays), besides superintendence and original capital for machinery, &c. The ginning season lasts only about three months. A gin in that time would clean 21,606 lbs., at a cost of rupees (172. 8.) one hundred and seventy-two and annas eight. The crop of Tinnevely is about 25,112,000 lbs., and would require 1,162 gins to separate the seed from the staple, giving employment to 15,106 strong labouring men, at a cost of rupees (1,99,054. 2. 8.) one lac, ninety-nine thousand and fifty-four, annas two, and pies eight. The people now do the work themselves, without this capital and cost. But to confine myself to my agency. Suppose I received an order for 5,000 candies, not a very large year's operation in cotton, I should have to employ 116 gins, at a cost of rupees (19,952. 5. 4.) nineteen thousand nine hundred and fifty-two, annas five, and pies four, for labour alone, to separate the seed from the fibre, independent of the cost of the machinery, the management by subordinate agents, the loss by speculation, the loss and trouble with the seed, &c. &c.

(signed) T. J. Finnie,
Cotton Planter.

* A third version is substituted for this paragraph by Mr. Finnie's letter of 24 February 1848. See page 271.

(No. 1088)—Revenue Department.

II.
Madras.

EXTRACT from the Minutes of Consultation, under date the 2d November 1846.

READ the following papers :

From Mr. T. J. Finnie, Cotton Planter.

[Here enter 28 August 1846, No. 1063.]

Minute by the Most Noble the President.

[Here enter 21st September 1846, No. 1064.]

From Mr. T. J. Finnie, Cotton Planter.

[Here enter 9th October 1846, No. 1126.]

It is of the greatest importance that every means should be used, not involving a heavy outlay, to introduce the cottons of India at a remunerating price into the British market, and the Governor in Council being of opinion that such practical experiments as those proposed by Mr. Finnie should have a full and fair trial, is pleased to grant the permission solicited by Mr. Finnie in para. 9. of his letter of the 28th August last, to act as general agent for the supply of cotton, and to connect himself for that purpose with any of the houses of agency.

Mr. Finnie's observations* on ginning cotton will be referred to Dr. Wight and Mr. Petrie for any remarks they may desire to make, and for their opinion generally on the relative advantage of employing the gin or the thresher in the cleaning and preparation of native cotton.

(signed) *E. P. Thompson,*
Secretary to Government.

From *T. J. Finnie, Esq.,* Cotton Planter, Tinnevely, to *Sir Henry C. Montgomery, Bart.,* Officiating Chief Secretary to Government, Fort St. George.

Sir,

I HAVE more accurate data now than I had when I wrote the letters dated the 26th of January and 28th August 1846, regarding the capability of the gins, and I have the honour to request you will be good enough to place the enclosed remarks on record as a substitute for the corresponding paras. in the letters to which they refer. You will observe that 750 lbs. of seed cotton is assumed to be the maximum which a gin will clean in a day. This considerably exceeds the actual work of the gins we have here, as shown in the tabular statement also enclosed for record in your office for future reference. I shall try various experiments during the approaching cotton season as accurately as possible, and shall unhesitatingly correct any error pro or con which I may discover.

(signed) *Thomas James Finnie,*
Cotton Planter.

Palamcotta, 24 February 1848.

To be substituted for the original 16th para. of a letter dated 26th January 1846 :

Para. 16.† What we want is a machine which will clean the dirt and trash out of the cotton, before the people have separated the seed from it in their rude way. We will endeavour to induce them to pay attention to cleanliness in the gathering process in the field, which will free the staple from much of the trash and rotten locks which now so much deteriorates it, which will be a great point gained. The thresher seems well adapted for that purpose, and will, in connexion with the churka and gin, if found practicable, accomplish much ; but all available ingenuity will be exerted to invent a better machine. I have one of these threshers coming from Calcutta, which I shall put to work in the district. As an auxiliary, I would insist upon having the gins, as the same machinery which moved the thresher would answer for them ; the same houses would also answer the double purpose. We could use the gins when we found we could do so to advantage, and then the thresher, which could be kept at work during the whole cotton season. I have written to Dr. Wight for three hand gins ; I wish to try if the people will patronise them upon the toll system.

To be substituted for the original 6th and 9th paras. of a letter dated 28th August 1846 :

Para 6.‡ It must be recollected that a gin, such as we have here, will only separate the seed from 750 lbs. of "cupas" (seed cotton) a day ; of this quantity about 78 per cent. will be seed, and 22 per cent. cotton, or 165 lbs. of clean cotton, at a cost of rupees (2. 7.) two, and annas seven per diem for labour, at which rate a gin would clean in a month of twenty-six working days, 4,290 pounds, at a cost of rupees (63. 6.) sixty-three, and annas six, besides superintendence and original capital for machinery, &c. The ginning season lasts about four months, in which time one gin would clean 17,160 lbs. of pure cotton, at a cost of rupees (253. 8.) two hundred and fifty-three, and annas eight, at which rate 5,000 candies,

* Paras. 2 to 5 of letter, dated 28 August 1846 ; as also para. 6, as corrected by letter, 9 October 1846. † See Parl. Paper, No. 439 of Sess. 1844, page 419.

II.
Madras.
*(145½)

candies, not a very large year's operation in cotton, will require one hundred and forty-six* gins at a cost the sum of rupees (36,927 1. 4.) thirty-six thousand nine hundred and twenty-seven, anna one, and pies four, or rupees (7. 6. 2.) seven, annas six, and pies two per candy of 500 lbs., and employ (1,898) one thousand eight hundred and ninety-eight able-bodied men alone to separate the seed from the fibre, and as above stated, independent of the cost of the machinery, the management by subordinate agents, the loss by speculation, the loss and trouble with the seed, &c.

Para. 9. In the 16th para. of my report, dated 26th January 1846, I alluded to the thresher as a substitute for the gin. That machine has been found to do well; it does not injure the staple, separates the dirt and trash from the seed cotton effectually, and all we require is to let the people then separate the seed from the fibre by the churka, or a similar machine improved; the good and the bad cotton to be kept separate and free from loose seed, and pressed into small compact bales, to keep it clean in its transit to the coast. - If I ever establish an agency here on my own account, this is the plan I shall pursue, and I trust * * * *

TABULAR STATEMENT, showing the Quantity of Seed Cotton cleaned in a Day by One Thresher and Three Gins, Two of 25 Saws each and One of 20 Saws, the per Centage and Quantity of clean Cotton from a given Quantity of Seed Cotton, and the Amount and per Centage of Waste; the Cost of Seed Cotton, Cost of separating the Seed from the Fibre, and Total Cost per Candy (of clean Cotton) in Rupees, and Cost per lb. in English Money.

Gins.	Number of Saws.	Time required to clean 100 lbs. of Seed Cotton.	Seed Cotton in lbs. Avoirdupois.	Cleaned Cotton in lbs.	Ditto per Centage.	Seed in lbs.	Ditto per Centage.	Loss and Trash from Thresher in lbs.	Ditto per Centage.	Loss and Trash under the Gin in lbs.	Ditto per Centage.	Loss and Trash, and small Particles of Cotton in Flue in lbs.	Ditto per Centage.	Imperceptible Loss in lbs.	Ditto per Centage.	Total in lbs.	Total per Centage.
No. 1	25	hrs. m.															
" 2	25	1 5	1,700	370½	21.81	1,280½	75.33	29½	1.73	18	1.06	1	0.06	½	0.01	1,700	100
" 3	20	about 1 hour.															

Cost for Seed Cotton of six Pod-hees, at Rs. 7. 10. per Podhee.	Cost of Labour for Ginning, or separating the Seed from the Cotton.	Cost of Cloth, Sowing, Packing, Twine, and Oil for Gins.	Total Cost of 1,700 lbs. of Seed Cotton.	Deduct Amount realised for Seed, C. Rs. 1. 6. per Podhee.	Net Cost of 370½ lbs. of clean Cotton, exclusive of Establishment and Superintendence.	Rate per Candy of 500 lbs. of Cotton, after deducting Amount realised for Seed.	Net Cost per lb. of clean Cotton.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	£. s. d. f.
45 12 -	7 9 6	2 7 6	55 13 -	7 15 -	47 14 -	{ 64 9 - £. s. d. 6 9 1½	- - 3 3 (104 500)

Camp, Aroopocottah,
28 July 1847.

(signed)

Thomas James Finnie,
Cotton Planter.

EXTRACT of a Letter from the Government of Madras to the Honourable the Court of Directors, dated 3 September (No. 47) 1847.

Para. 4. THE correspondence recorded on the Consultations, entered in the margin,* relates chiefly to matters connected with Mr. Finnie's proceedings in Tinnevely, and call for no particular detail, excepting that we sanctioned a proposition made by him to establish a model cotton plantation in the Courtallum Valley in that district.

(No. 96.)

From *F. B. Elton, Esq., Acting Collector*, to *J. F. Thomas, Esq., Chief Secretary* to Government, Fort St. George.

Sir,

I HAVE the honour to forward copy of a letter from Mr. Finnie, dated the 24th instant, proposing to establish a model cotton plantation, of about 100 acres, in the Courtallum Valley, and to state that, so far as I am acquainted with the subject, the proposal seems judicious, and the country alluded to well adapted for the experiment, so far as it extends; but the tract of country in question is limited to an area of about 13 miles in length from north to south, by about seven miles wide from east to west, from which considerable deductions must be made for lands already occupied by rice and other cultivations, besides tracts belonging to Travancore.

Tinnevely, Trichendoor, 30 April 1847.

(signed) *F. B. Elton,*
Acting Collector.

To *F. B. Elton, Esq., Acting Collector*, Tinnevely.

Sir,

As the commencement of the south-west monsoon may be expected about the beginning of June, it is important to make some definite arrangement regarding the permanent establishment of a model cotton plantation in the Courtallum Valley.

2. I observe that the article produced at Coimbatore, in similar land and climate, is highly estimated in England. The little which was planted at Courtallum last year, though on the worst land, and much neglected by the people who undertook its culture, still produced a fine quality, and under the circumstances yielded a good return.

3. As mentioned in my letter to Dr. Wight, a copy of which is herewith forwarded, I propose to establish a model plantation of about 100 acres, and distribute seed, and instruct the people in the mode of procedure, with the hope of inducing them to adopt the culture of the article as a staple product.

4. I have the honour to request you will be good enough to give the matter your consideration, and if the proposition meets your approbation, submit your "opinion and suggestions" on the subject to Government, and let me know the result as soon as practicable, that I may make the necessary arrangements, to carry out the plan.

Camp, Aroopocottah, 24 April 1847.

(signed) *Thomas James Finnie,*
Cotton Planter.

To *R. Wight, Esq., Superintendent Cotton Farm*, Coimbatore.

Sir,

I OBSERVE from the published accounts of the sale of your Coimbatore American cotton, that it is very highly estimated. That which was planted last year at Courtallum yielded well, and there is large area of country which gets the benefit of the south-west monsoon. I had the honour to request your opinion as to the propriety of increasing the cultivation there. I propose to have about 100 acres on Government account as a model plantation, and distribute seed to the people, to cultivate on their own account, under a contract to take the cotton off their hands at a fixed valuation, in the hope of inducing them to appropriate the great extent of waste land to the culture of the article.

If the proposal meets your approbation, and the sanction of Government, I request you will be good enough to despatch a quantity of seed.

As it is not definitively settled what particular communications of mine have to pass through your hands and the Collector's respectively, I have written to that gentleman also, and shall forward him a copy of this letter.

That

* 22 January 1847, Nos. 21, 22. 23 March 1847, Nos. 57, 58. 27 April 1847, Nos. 11 to 13. 28 May 1847, Nos. 7, 8. 6 July 1847, Nos. 6, 7. 13 July 1847, Nos. 1, 2. 27 July 1847, Nos. 32, 33.

II.
Madras.

That the American cotton will grow well, wherever it gets the benefit of both monsoons, there is not a doubt, nor is there a doubt in my mind as to its being a profitable source of employment to the people in the immediate neighbourhood of those favoured spots, if they will adopt its culture, and attend to it properly.

I have, &c.
signed T. J. Finnie,
Cotton Planter.

Camp, Aroopocottah,
24 April 1847.

(No. 607.)

BEFORE taking into consideration the proposition communicated in the foregoing letter, the Most noble the Governor in Council desires to be informed, more particularly, as to what Mr. Finnie means by a model farm; whether the land is to be held on account of Government, and whether he intends to follow European or American processes, backed by capital, or proposes to make such improvements on the native system of labour as will not alter its nature, and are within the reach of the native cultivators.

(signed) H. C. Montgomery,
Fort St. George, Secretary to Government.
20 May 1847.

(No. 136.)

From F. B. Elton, Esq., Acting Collector, to J. F. Thomas, Esq., Chief Secretary to Government, Fort St. George.

Sir,

WITH reference to the Minutes of Consultation under date the 20th ultimo, I have the honour to state, that having called on Mr. Finnie for the information required by the Most noble the Governor in Council, he has addressed me the accompanying letter explanatory of his views and plans regarding the proposed model cotton plantation in the Courtallum Valley.

(signed) F. B. Elton,
Tinnevely, 8 June 1847. Acting Collector.

(No. 670.)

From T. J. Finnie, Esq., Cotton Planter, to F. B. Elton, Esq., Acting Collector, Tinnevely.

Sir,

I HAVE the honour to acknowledge the receipt of your letter (No. 510), dated 28th ultimo, enclosing a copy of your letter to Government in reference to the proposed model plantation in the Courtallum Valley, and a copy of the Minutes of Consultation (No. 607), dated 20th ultimo, requesting further information on the subject.

2. The proposed model plantation, to the extent of 50 or 100 acres, is to be on lands held by Government, and cultivated under my superintendence, either by hired labour or contract, at so much the acre, as may be most convenient, and to be planted in rows, and the ground kept well stirred and free from all extraneous matter, but solely with native instruments, as an example to the landholders, in the hope of inducing them to adopt the culture on their own account.

3. I propose to distribute seed to those who are willing to cultivate the article, and will contract to take the produce off their hands at a fixed rate per candy on Government account, and as soon as the people will adopt the plan, I should give up all culture on Government account, and leave it in their hands, merely taking the produce at its value. This is the simplest plan of procedure, and more likely to succeed than if the business was confined to the Government experiment.

4. I proposed the adoption of this plan with the view of meeting as far as possible the increasing demand in England for American cotton grown in India. That good American cotton can be grown in the spots which get the benefit of both monsoons, I am well aware, and if the people will adopt the culture they may make it profitable, and several thousand bales might be produced at Courtallum and Coimbatore, and in these localities, as far as they extend, the people would doubtless be benefited, and as far as the quantity goes England would have the advantage of getting it from her own subjects; but how far the most complete success in these spots will meet the expectation of those interested, is not for me to decide. I shall do my best to make success as complete as possible, at as little expense as possible.

(signed) T. J. Finnie,
Camp, Aroopocotta, Cotton Planter.
2 June 1847.

(No. 757.)—Revenue Department.

EXTRACT from the Minutes of Consultation, under date 30 June 1847.

READ again letter from the Acting Collector of Tinnevely, dated 30 April, and recorded in Diary to Consultation, 28th May 1847 (No. 603).

Read also, the following letter from the Acting Collector of Tinnevely:

Submitting Mr. Finnie's letter, explanatory of his views and plans regarding the proposed model cotton plantation in the Courtallum Valley.

[Here enter 8 June 1847, No. 136.]

The Most noble the Governor in Council is of opinion that the experiment proposed by Mr. Finnie of establishing a model cotton plantation in the Courtallum Valley, on the plan explained in his letter of the 2d June, will be useful in every respect, both for the native grower and the Government, and will further enable a judgment being formed of the capability of the climate and soil for producing cotton, and of the expenses attending the cultivation by native labour, under the instruction of a person acquainted with the nature and wants of the cotton plant in every situation and exposure. His Lordship in Council accordingly sanctions the proposition, and desires the same may be carried out, the Collector affording Mr. Finnie every aid in his power for that purpose.

His Lordship in Council resolves to furnish copy of this communication to Dr. Wight for his information.

(signed) *H. C. Montgomery,*
Secretary to Government.

Revenue Department, 17 January (No. 14) 1848.

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs,

1. We have the honour to bring under the consideration of your Honourable Court copy of a letter from Mr. T. J. Finnie, cotton planter in Tinnevely, suggesting that he may be deputed to England, for the purpose of consulting with and ascertaining from the manufacturers there the extent to which they are disposed to patronize the measures urged by them in regard to the cotton of this Presidency.

Cons. 18 January
1848, Nos. 36, 37.

2. We are of opinion that the proposed measure will afford great stimulus in forwarding the cotton experiments, and as such we would recommend it to your favourable notice.

3. In the event of your Honourable Court acceding to Mr. Finnie's proposal we request we may receive definite instructions regarding the terms on which your permission is granted.

We are, &c.
(signed) *Tweeddale.*
J. P. Dickinson.

Fort St. George,
17 January 1848.

From *T. J. Finnie, Esq.,* Cotton Planter, Tinnevely, to *J. F. Thomas, Esq.,* Chief Secretary, Fort St. George.

Sir,

THAT the administration which have fostered the cotton experiment may decide on the subject-matter of this letter, I take the liberty to address you direct, and have the honour to request you will be good enough to submit the following for the consideration of Government.

2. The gin-house which is ordered to be erected at Sevacaunsey will not be completed for six or eight months, before which time the approaching cotton season will have passed, and when I reflect how little, comparatively, I can do this year with the means at my disposal, and how little I can effect for the improvement of the cotton of this country without the co-operation of the manufacturers and merchants, and how impossible it is to interest large and influential bodies in a novel enterprise without a more powerful and direct means of communication than I at present have, I am constrained to propose to the Most Noble the Governor in Council to depute me to England, to consult with the manufacturers and ascertain how far they are disposed to patronise the measures which they urge on the Honourable Court of Directors.

11.
Madras.
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3. If I relied solely on the immediate advantages derived from my connexion with Government, it would be to my interest to remain quietly here. But I am not content to work merely as a salaried servant much longer. Government have been as liberal to me as I could possibly expect, when the result of my labour is considered, and that very liberality stimulates me to renewed exertions to bring about the hoped for result of my mission to this country, and it is a hope of making arrangements that will enable me to accomplish more here than I can now possibly do, that induces me to make the proposition.

4. Where is the necessity of keeping me here to look at the working of three miserable gins, when by deputing me to consult and arrange plans with those most interested, the manufacturers, I may soon return with the means of prosecuting the business with advantage to all concerned? If, however, his Lordship in Council thinks that the business can be arranged in England as well by writing as by personal conference, I shall be content, and indeed glad to remain here,

5. If I am deputed to England I desire, *en route*, to visit the scene of the great success in the Bombay Presidency, that I may be able to answer the numerous questions that will be asked me on the subject.

6. I submit this plain candid statement for the consideration of Government, but beg to assure the Most Noble the Governor in Council that I shall cheerfully acquiesce in his decision on the subject.

I have, &c.
(signed) Thomas James Finnie,

Camp, Verduputty, Cotton Planter.
23 December 1847.

No. 70.—Revenue Department.

EXTRACT from the Minutes of Consultation, under date 17 January 1848.

Read the following letter from Mr. Finnie, Cotton Planter:—

Under the circumstances stated proposes for the consideration of Government, that he be deputed to England for the purpose of consulting with and ascertaining from the manufacturers there, how far they are disposed to patronise the measures which they urge on the Honourable Court for the improvement of the cotton of this country.

[Here enter 23 December 1847.]

The Most Noble the Governor in Council resolves to bring the subject of the foregoing letter under the consideration of the Honourable the Court of Directors, and to solicit their orders on the proposition of Mr. Finnie, "to be deputed to England for the purpose of ascertaining from the manufacturers there how far they are disposed to patronise the measure urged by them in regard to the cotton of India." His Lordship in Council is of opinion that the proposed measure will afford great stimulus in forwarding the cotton experiments at this Presidency, and as such will recommend it to the favourable notice of the Honourable Court.

(signed) H. C. Montgomery,
Secretary to Government.

EXTRACT Letter from the Court of Directors to the Government of Fort St. George, dated 4 July (No. 11) 1848.

Para. 6. WE have considered your proposal to depute Mr. Finnie to this country with the view of entering into communication with the manufacturers, but as we do not see that any advantage is likely to accrue from such a proceeding we must decline to comply with it.

From T. J. Finnie, Esq., Cotton Planter, Tinnevely, to J. F. Thomas, Esq., Chief Secretary to Government, Fort St. George.

Sir,

THE circumstances under which I write will, I hope, justify me in addressing you direct. I have the honour to request you will be good enough to place the following remarks before the Most Noble the Governor in Council.

I have learned from Dr. Wight himself that he has written to Government to report a "conspiracy" among the American planters to discourage the British public from perseverance in the culture of American cotton in India. I consider that such a charge is most serious, involving, as it does, the dearest principle of every honourable mind, and, if established,

established, reflecting dishonour on the guilty party alike in the estimation of all, of whatever nation or creed. If such a charge can be established against me, my countrymen and friends at home would be the first to condemn and the most ruthless in the condign punishment they would inflict, by the withdrawal of their confidence.

I am perhaps unfortunate in taking a different view of the subject from that which the philosophical Dr. Wight takes, but in which I differ with him in opinion, and believe his course of procedure erroneous in the extreme. I give him credit for sincerity of purpose, and I only claim that charity for my motives which I so readily concede to him. Were it possible that any efforts here could injure America, I think I could not more effectually serve my country than by leaving the business in Dr. Wight's hands, and let him continue to produce cotton at a guinea a pound. I hope Government will by all means accept Dr. Wight's offices, and let him decide the matter philosophically at a cost of some lacs of rupees; a little common sense can decide it at a much cheaper rate.

In the result of the examination of the charge which Dr. Wight so gravely brings against me, I have a dearer stake than I can possibly have in anything that does not affect life, yet it excites in my bosom no anxiety, for if the Most Noble the Governor in Council will be pleased to take the trouble to enter upon the investigation with that deliberation which I consider the charge deserves, my own conscience tells me there can be but one opinion, and that opinion based on the records before Government; I fear not, and I write solely to urge, most respectfully, that the matter be not passed over lightly; my only fear is that the charge is so absurd in itself as to meet but little attention from Government, which I should deplore as a misfortune, for Dr. Wight assures me that he gave the subject due consideration before taking the step, and of course in his confidence of having discovered me guilty, has written to England the same statements he has represented to Government here; and I hope the Most Noble the Governor in Council will be pleased to pass such a decision as will effectually counteract Dr. Wight's accusation.

I respectfully request that the papers which I transmitted to the Most Noble the Marquis of Tweeddale for his private information, be considered public documents, and deposited in the archives of the State, for in them alone is ample evidence to refute Dr. Wight's charge.

I hope I shall be favoured with a copy of the charge, that I may know the grounds on which it is made. Dr. Wight assumes the prerogative of the gods in Homer's battles, and assails me from the clouds, and the combat is consequently unequal. Let him descend to an equal field and we will discuss the important matter gravely;—Philosophy v. Common Sense.

As a public servant of Government I should not notice Dr. Wight's charge, but as an agent and a candidate for the patronage of business men in transactions involving large sums of money, I must maintain an untarnished reputation; and if I did not use my best efforts to accomplish that for which I am paid, I should certainly be unworthy the confidence of the public, whether Englishmen or Americans, and it is on these grounds alone that I write to Government to solicit a strict investigation, and a firm decision according to the evidence already on record, though I am in possession of information* which can be procured at the India House, that will establish the fact the reverse of that which Dr. Wight asserts. However we need not go so far, the Government has before it my correspondence; on that alone I base a refutation of the accusation. I am not, I am happy to know, to be tried for undefined offences by loose notions of constitutional law or strange rules of evidence, but to decide the justice of a specific charge. I am arraigned before a high tribunal, where the intricacies of law are unknown, but where a high sense of justice prevails, and great practical wisdom abounds, fitting the judges for a judicial trial on the most enlightened principles of public and constitutional rights. To that tribunal I submit, and in that tribunal I have every confidence.

I exceedingly regret that Dr. Wight's morbid jealousy should have prompted him to declare a feeling of distinction between Englishmen and Americans, or between English and American interests; I have always felt that we are one in blood, one in interest, and one in philanthropy, which prompts all to consider that the greatest good to the greatest number is the greatest achievement, and should excite our common zeal for the accomplishment of so important an object as the amelioration of the millions of this country; it was with these feelings that I engaged in the enterprise, and it is with these feelings I continue in it, but since the question has been mooted by Dr. Wight, I deem it right to declare unequivocally that I do not think all we can possibly accomplish for India can ever injure America; and I still believe, as I have declared long before the accusation of "conspiracy" was known to me, that our best efforts here can only secure for India that share in the commerce of the world which she is justly entitled to. I am aware that Dr. Wight is anxious to get rid of me, but I will not be driven from the discharge of my duty; here I will stay as long as it suits the mutual convenience of Government and myself, and during that stay I will discharge in the best way I can the duties entrusted to me; and if my views prove erroneous in reference to the general profitable culture of the American cotton in this country, that is, if it succeeds, my fortune is made. I trust, at any rate, Government will make it so evidently my interest to do my best, that there will be no temptation to "conspiracy." I can do as much ordinary work as most people, I may

* Mr. Mercer's opposition to my views, in reference to the value of the American gin for the indigenous cotton, as well as his concurrence in reference to climate, &c., for the American cotton. We have not exchanged opinions on the subject since he left Bundlekund in 1842.

II.
Madras.

assert without egotism: but if Government wants philosophical operations in a business which requires practical facts rather than philosophical theory, I fear I can do but little in the accomplishment of the object.

That geographical position affects climate and soil, and that climate and soil influence the character of the inhabitants, needs no further demonstrative evidence than that which comparison of the manners, customs and habits of the different nations of the world will afford the inquiring mind; and that India is not geographically situated, nor her inhabitants, at present, mentally and physically in a position to contend unaided and alone, with the more favourable geographical position, and the more fully developed mental and physical energies of the other natives of Europe or America, needs no very acute perceptions in the philosophy of political economy to determine.

I might enlarge on this subject, but I leave it in better hands than mine, and wait the decision of the Most Noble the Governor in Council in the most placid state of mind, while I exert the most vigorous physical energies and the little mental vigour I possess, in the discharge of my duty.

(signed) *Thomas James Finnie,*
Cotton Planter.

Camp, New Vembocotta,
16 November 1847.

(No. 332.)

THE Honourable Governor in Council observes that no communication of the nature referred to by Mr. Finnie has been received from Dr. Wight, and therefore resolves to record the foregoing letter.

(signed) *H. C. Montgomery,*
Secretary to Government.

Fort St. George,
28 March 1848.

From *T. J. Finnie, Esq.,* Cotton Planter, to *E. B. Thomas, Esq.,* Collector, Tinnevely.

Sir,

THE accompanying report and remarks was drawn up about the date it bears. I prefer submitting it as originally written, rather than remodel it. It may be essential to state why it was not submitted earlier, and I have only to say that while it was in progress of preparation I received a series of questions which were propounded by Lord Tweeddale, the replies to which required the very information I had contemplated giving, and to which allusion was made in the draft of this report. That information being embodied in my reply, which subsequently became official, and as my office establishment was not with me, I communicated much of the present paper in a demi-official form, which rendered a formal report less urgent; and other matters occupying my attention at the time, the report was allowed to fall in abeyance. I now have the honour to submit it, and trust that it will prove so far satisfactory, as the result of my operations here, however unsatisfactory the result itself may be as far as the culture in the plains of the American cotton is concerned.

2. I have the satisfaction to report the favourable progress the farm is making at Courtallum under native management exclusively, which mode, I think, should be encouraged; I hope to be able to extend the cultivation there this year, and to plant at an earlier date in the season, which will be a great advantage.

3. As I feared, the plants have failed where they were planted this crop-year in the open plains, but some that was planted in protected spots have grown very well for this country, and are yielding some cotton, and several people promise to plant the next crop carefully, and I hope to give this part of the country a fair chance of success by the only means by which success is attainable in any thing here, viz., the co-operation of the people themselves; if they succeed in making it profitable, they will not be slow to cultivate extensively; if they do not succeed, it is clear we cannot, and the great expense of a gigantic farm is saved. I shall be glad if all my former unfavourable reports of results ultimately prove erroneous. I shall not fail to report every favourable symptom I discover; I am not prejudiced in favour or against any plan; all I want is to see a common-sense plan diligently pursued till the matter is decided by irrefragable evidence.

(signed) *T. J. Finnie,*
Cotton Planter.

Aroopocottah, 12 April 1848.

From *T. J. Finnie*, Esq., Cotton Planter, to *F. B. Elton*, Esq., Acting Collector,
Tinnevely.

Sir,

Camp, Courtallam, 23 September 1847.

COULD I have reported anything connected with my operations during the cotton season which has just passed, particularly gratifying to myself, advantageous to Government, or promising, in reference to the ultimate result of the experiment in which I am engaged, I should have entered upon the duty of reporting my proceedings in form, for the information of Government, or others interested, with feelings very different from those which now predominate. In undertaking the duty of supplying the information I have now to offer you, from oral as well as written communications, in full possession of what I have attempted to do for the advancement of the experiment, and it only remains for me to state officially the result, as succinctly as possible, for submission to Government. I have the honour, therefore, to request you will be good enough to place the following before his Lordship in Council.

2. As I have not reported the result of the American cotton which was planted in the neighbourhood of Sevacausey last year, I must commence with that; and I am sorry to say that not a plant lived through the long drought which prevailed so generally, except a small field which was planted and irrigated by a ryot of intelligence and zeal. This field has produced a little cotton, and the people like it much, and seem to think that in a good season!! it will succeed well without irrigation; and as they expressed a willingness to plant it this crop-year, I gave them seed, and agreed to take the produce off their hands, in the seed, at two rupees (2) per podhee of 280 lbs. above the market value of the native article. The people have tried to separate the seed from the fibre with the churka, but found it impossible, and made it one of the conditions of planting that I must take it off their hands in the seed. Thus it appears that the American cotton and the American gin must go hand in hand; and, as the sequel will show, as far as my experience goes, where the one fails the other is useless.

1846.

3. I have also, merely in deference to Dr. Wight's advice, ordered a few acres to be planted this year at the three stations of Sevacausey, Virdooputty, and Aroopocottah, merely however that those who differ with me may not say that the experiment was not fairly tried. I know the result now as well as I shall when the season has closed; failure must be the result. I might say we have failed this year, but, in consequence of new discoveries, we shall succeed next year; instead of which, however, I say we have failed to produce the American cotton in Southern India, and must ever fail where we have not the benefit of both monsoons, and even where we have, we cannot produce the articles as a marketable commodity. But the people may, if they will, take it up.

4. As you are aware, from the hindrances in regard to the proposed gin-house, at Aroopocottah, it was not erected; and, as I had been some time in camp there, I found I was able to induce the head man of the place to rent me a house* at seven rupees (7) per mensem, and a godown at three rupees (3), for the purpose of ginning cotton. I took them, and after the necessary alterations, erected two 25 and one 20 saw-gins, and a thrasher, and invited the cotton brokers, chitties, and ryots to come and see the operations. They came in crowds daily. I took much pains to show the people the advantages of the gin over the churka, in order to induce them to adopt the machine, and they seemed well pleased, and much inclined to enter heartily into the plan. I showed them that the thrasher separated so much of the dirt from the cotton, so much more was taken from it; as it passed through the gin the seed was all taken out, and the cotton was clean and nice, at which they were apparently delighted, but required time to consider the propriety of adopting so new and wonderful an instrument. They appeared themselves to take a very shrewd view of the subject, and reasoned thus, as I learned, among themselves: "Here is a gentleman who is come amongst us, and who proposes to trade in cotton like ourselves; he brings machines which are new to us, and which evidently cleans the cotton beautifully; he generously offers to let us have the machines, or is willing to clean our cotton with them. The cotton is so superior to that which we usually sell, that it will rule the market, and he will dispose of his good cotton to the European merchants when we cannot find a market for our inferior and dirty article, and it is obvious that we must either adopt the gin or lose the trade by which we make our bread. The cotton is superior evidently, and ought to bear a much higher price; and it remains for us to ascertain if that increased value is sufficient to pay us for the additional trouble," &c. &c.

5. A deputation of brokers waited on me to know how much more they were likely to get for the cotton cleaned by the gin, and if there was a market for it, for they said they had

* See my letter to the Acting Collector, dated 13 March 1847.

H.
Madras.

had hitherto found the dirty cotton sold almost as readily for a very trifling difference in price, and was certainly more profitable than the best and cleanest article they could get. The ginned cotton, they continued, is certainly superior to ours, but when it is recollected that we engage to deliver our cotton with all the dirt in it, which your thrasher and gins take out, it is plain that unless we can realise a much higher price, it is contrary to our interest to remove the dirt and trash, for we must make it up with cotton, and when the difference of cost between dirt and cotton is considered, it is evident we lose by the improvement. This argument from the shrewdest people in the world, where profit and loss is concerned, was conclusive, for I observe from one of Dr. Wight's letters, that ginned cotton only brings 4d. more in England than the common churka-cleaned article, the loss in dirt alone amount almost to that sum.

6. The use of the gin hinges on profit and loss alone; the people have no objection to its use, and if they could realise a profit by it, they would use them at once.

7. There is a great deal said in England about the great advantage of sending the cotton home clean, and yet those whose cry is the loudest and most plaintive, are they who wish to realise all the advantage themselves, and take the "poor Indian ryot's" clean cotton at what they have hitherto given for the dirty article. How generous, how noble, how disinterested is the desire for India's improvement! The success of the gin here rests solely with the willingness of the merchant and manufacturer to pay a price in proportion to the increased value of the article. The quantity ordered to be purchased by the Honourable Court of Directors will decide how far the merchants and manufacturers in England are willing to patronise the gin in India.

8. I regret exceedingly that I have not been able to do as much, as the few gins I had would accomplish. I made arrangements to purchase seed cotton from many different parties, but the quality delivered was always so far inferior to the sample, that I was compelled to reject it, but was always willing to take it at a reduced price, in proportion to the quality, but the people greatly preferred selling to a broker at the reduced price. They seemed to think that I should ultimately be compelled to purchase at whatever price they chose to demand. I took a stand, however, from which I would not be driven. I was willing and anxious to purchase, but I knew well that if I did so, Government must lose on it this year, and a precedent would be created which it would be impossible to counteract in our subsequent operations; and I considered that although Government might afford to lose, the object of the experiment would not be realised, for it is to try if the business may be conducted as a mercantile transaction, and it is clear that if in conducting the experiment we create precedents in high prices, no merchant can ever carry on the business. I had Government money in my hands, and it required all my firmness to resist the inclination to purchase; it would have been much more pleasing to me to have been actively employed than to be idle in the wilderness. I have only purchased a few hundred rupees' worth of cotton, as per accompanying accounts.* If I have committed a fault, it is my own; I trust, however, my course under the circumstances will be approved.

* In detail and abstract.

9. I submit a tabular† statement to show the cost of ginning operations. The estimate only includes the actual expenses of the day, excluding house, machinery, superintendence, &c. The business was conducted and expenses disbursed under my own eye, with greater celerity and stricter economy than could be expected when left to the natives as our servants.

10. The gins did that day as much work, at as little expense as they can ever do; and I submit the statement, that Government may see how far ginning operations are likely to revolutionise this country in an agricultural point of view.

11. In my humble opinion, the gin as now constructed is a failure here, and our only hope of success depends upon the construction of a machine that will do more work at less cost.

12. Of the two 25-saw gins, I may remark that one of them will clean 100 lbs. of seed cotton per hour when steadily worked, while the other requires two hours to do the same work; or to speak exactly, of the result of two trials I made with it, the first trial of gin No. 1, 25 saws, requiring 13 men per day, six at a time at the wheel, and one at the gin cleans 100 lbs. seed cotton, time one hour and five minutes; second trial, 59 minutes.

13. Gin No. 2, 25 saws, requiring 13 men per day, six at a time at the wheel, and one at the gin, cleaned, first trial, 100 lbs. seed cotton, time two hours and five minutes; second trial, two hours and 10 minutes.

14. Gin, No. 3, 20 saws was not timed, but it does almost as much work as the gin No. 1, while it requires only nine men per day, who relieve each other alternately, in sets of

† This has been submitted since the letter was written.

of four, eight for the wheel, and one for the gin. This is the last gin made by Mr. Petrie, and is the most superior machine I have seen in India. The above shows that much depends on the construction of the machine, and much improvement may be effected; and if we can realise a price for our cotton in proportion to its cleanliness, and consequent enhanced intrinsic value, we may yet see the gin in constant and profitable use in this country. Too much care, therefore, cannot be observed in the construction of the machine. The cost of the machine must be greatly reduced before the people can afford to use it; but in consideration of the facts that the gin requires much care and accurate observation, is liable to get out of order, and the native cotton seed being so small as to render it difficult to put the grates sufficiently close to prevent injury to the cotton, while the seeds are prevented from passing through, and it being slow in operation in comparison with the expense incurred, that really I think we shall find the general introduction of the machine exceedingly difficult, and under the circumstances doubtful in utility. I am aware that I lay myself liable to the charge of "unsound views," and "inaccurate information." Let years of toil prove who is correct. In the meantime I will do all I can to introduce the gin, with all due deference to the opinion of others.

(The following account of the present state of the cotton trade has been submitted to Government in a demi-official form, but as it was intended for this report, I include it that it may be preserved officially.)

The cotton of this country is produced by the ryot; of course he is always in his banker's books as deep as his credit admits, and can do nothing without aid. The brokers are cotton cleaners, or gin-house men, are the middlemen between the chitty and the ryot. The chitties being moniedmen, make an advance to the broker; the broker advances to the ryot, and then looks sharp after him to see that he plants the land necessary to enable him to meet his engagements; otherwise the money would be spent in a big feast or wedding, or nautch (dance), or some sort of "tumasha." The broker is particular in classifying the seed cotton, and pays for it according to cleanliness, and then he has much of the trash, and rotten locks picked out, not to make the cotton better, but because the rubbish chokes the churka, and prevents it from working. The good cotton is then separated from the seed, and this bad stuff which has been taken away from the good is beaten with a stone to loosen the rotten fibre from the seed, and then it is passed through the churka, and as the chitty contracts very closely, the broker must resort to the "devil's dust" system to make his bread. The good cotton, and this bad, "shocking bad" stuff, is put into a little room six feet by six, which is entered by a low door about 18 inches by 2 feet. There is a little hole as a ventilator through the outer wall; two men go in with a bundle of long smooth rods in each hand, a cloth is tied over the mouth and nose to keep out the flying fibres of cotton, one man places his back so as to stop the little door completely, to prevent waste, and they both set to work and whip the cotton with their rods to mix the bad and good together so thoroughly, that a very tolerable!! article is turned out, even after all this bedeviling, and if the people get a living price for the article they let it go as it is, with a few seed; but as is usually the case, they are shaved so close that they are driven to resort to another means of realizing a profit; they add a handful or two of seed to every bundle, or let it get in by accident, and this is delivered to the chitties, and the chitties deliver it to the European agents, and the European agents save their exchange, and their object is gained; the cotton is taken by the manufacturer at a low price, because he knows not what he is buying; he spins and weaves it, and it is finally sold to some poor man for perhaps his last shilling, and he soon finds "he has paid too dear for his whistle," for he is left in rags. The poor are always the sufferers. The poor ryot is made to suffer; but for him I have no sympathy, for it is his own fault, his own improvidence that places him in the hands of the rich chitty. It is not the land tax that is burthensome to the ryot, it is the usurer that absorbs his means; and I assert, from long strict observation and laborious investigation, that if the land was not taxed at all the ryot would be no better off. If you increase his means, you only increase his account at his banker's in the same proportion; almost every ryot is indebted to the fullest extent of his credit, and as I have said, increase his ability to pay, and you only increase his credit at his banker's. Therefore, O ye governors, who wield this mighty empire, fight as long as you can, raise a voice before you reduce a tax which you can never again levy; but examine the matter in detail, and where the tax is found burthensome wise policy dictates its decrease. Take off your export* duties and give facilities for reaching the ports of shipment by the construction of roads,† and you do justice to your subjects and confer a benefit, indirectly, on yourselves. But the poor man who buys this manufactured stuff, consisting of rotten and wormeaten locks of cotton in the first place, excites the sympathy of all ye generous Britons. You have the correction of this evil in your own hands; you have the climate and soil which produces a fair indigenous cotton, which the manufacturers assure us is a most useful article if they could get it clean. As I have said, the brokers separate the bad from the good by hand picking, but are forced to mix it all together again, at a cost of time and labour, which we can well afford to pay for to keep the qualities separate.

* This has been done.

† In slow process.

(signed) Thomas James Finnie,

Camp, Courtallum, 23 September 1847. Cotton Planter.

ABSTRACT STATEMENT.

T. J. Finnie, Cotton Planter, Account Current with the Collector of Tinnevely for 1847.

Dr.

To Amount received from the Treasury of Tinnevely, as per letter, from F. B. Elton, Esq., Acting Collector, under date 13th April 1847

Rs. a. p.

5,000

Rs. 5,000

Cr.

By Amount paid, value of 73 podhees and 6½ toolams of seed cotton, at 15 toolams per podhee

543 10 2

Expenses incurred :

By coolies ginning and packing cotton

123 14 3

" Cloth for packing cotton

12 1 -

" Needle and twine

2 10 -

12 3 10

136 2 1

Deduct amount realised for seed

89 7 1

46 11 -

By cost of separating the seed from the cotton in excess, to amount realised for seed

46 11 -

" Amount returned to the Treasury

4,000 - -

4,500 5 2

" Balance in hand

409 10 10

Rs. 5,000

(signed) Thomas James Finnie,

Camp, Aroopocotta, 31 March 1847.

Cotton Planter.

To J. F. Thomas, Esq., Chief Secretary,

My dear Mr. Thomas,

SINCE the dispatch of my report to the Collector, I have, I think, fully verified the truth of the position I have assumed in reference to the best mode of conducting the cotton experiment to a successful issue, viz., by the co-operation of the people whose business it is to attend to such matters, and by the aid of instruments level to their means and capacity, as well as consistent with their circumstances in reference to numerical strength.

2. I have the honour, the pleasure, and the satisfaction to forward for the inspection of the Right Honourable the Governor, a specimen of cotton which was cleaned by the churka alone, of course, the particles of trash being separated by the hand; and I now have nearly a whole village at work producing such cotton as this; and if I am encouraged to go on I will pledge myself ultimately to have the whole crop of Tinnevely thus cleaned, provided always that purchasers can be found willing to give a reasonable price for the article.

3. Hitherto I have not proclaimed success, because I did not consider that it had been attained; but I believe, now, that we have commenced a very pacific "revolution" in cotton among the democratic republicans of Hindostan!! A freer and more independent race does not exist. They are not fond of a total change, especially when unprofitable; but a little persuasive eloquence to convince them that we are in earnest, especially when accompanied by the consonant clink of the coin they like, will speedily bring them to compliance with reasonable demands on their efforts.

4. A complete reformation has taken place in some of the native cotton-cleaning houses here; hitherto they have been filled with rubbish and a "compound of villanous smells," and now they are clean, nicely matted. This was effected by reason, applied through the shafts of ridicule, of which the people are peculiarly sensitive.

5. I explained to them their own situation in reference to other nations, and pointed out the importance of their keeping pace with the improvements which are going on in other

parts

parts of the world, and illustrated it by comparing the advance in cotton alone which America had made in a short time, with the stagnant position, or, in reference to that article, retrograde movement they were perceptibly making. I made them feel that they had the power, and if they did not exert it to raise themselves, by attention to the wants of other nations, they would soon be left without trade, and that though they might continue to have bread they would certainly see but few rupees. The result is, that they are all alive to the importance of improving their cotton, and they are doing it. I have engaged a quantity of this article for shipment to England, and I aver that if it could by any possibility reach England *via* America, it would be a good fair quality of American cotton.

6. Amidst mountains of opposition, I have persevered in my efforts to awaken an interest in the people on the subject of the importance to them, individually and nationally, of preparing their great source of wealth in a manner that would render it valuable abroad. The people themselves scarcely knew that they could make the cotton so clean until they were made to try. They have never had a demand for a clean article, and it is not strange they did not prepare it. Why should they?

7. But now that they have been taught to know their own powers and the additional value which is attached to the superior article, I hope that Government will encourage them by a large purchase of such cotton as this. A few thousand bales of such an article arriving in England from India would be the most important event the commercial world has known for many years, and a safer remittance cannot be made. I am not sure that I can at once effect an arrangement for a large quantity, but I trust that Government will allow me to encourage the production of such an article to the full extent that may seem desirable. The gin-house men in the neighbouring villages are coming over daily to see what is going on, and I think we should take advantage of the depressed state of trade to encourage the people to pay more attention to the cleanliness of the article.

8. I feel very anxious to do all I can to bring about the desired improvement. It is only by becoming acquainted with the people and gaining their confidence that we can hope to induce them to adopt our views, and with that end in view I have, at different times, remained for months together in the jungles, exposed to heat and rain, and I can cheerfully continue to do so for a time now that we have a prospect of effecting so great a benefit to the permanent interests of the country.

9. I fear the cotton we get well cleaned here will not be wholly free from trash when it gets to the coast, in consequence of defective packing. I trust that the Right Honourable the Governor will give my suggestions his careful attention; and if I am supported in my efforts I shall go on my way rejoicing, and trust we shall ultimately, at no distant day, see the cotton trade of this country under a well-organised system, without which no improvement can take place. I have weighed the subject well, and it appears to me that the plan I have proposed is the simplest that can be devised, and its very simplicity I humbly think its greatest recommendation; a grander scheme might be promulgated, but I look to the results, founded on views derived from the principles of political economy, as I understand it, which may or not be correct; we shall see.

10. The specimen of cotton was taken from a roomful and is a fair sample of that which the churkas turn out under the new regimen adopted by the cotton cleaners.

11. I know not if I presented my views in any of my reports in a sufficiently defined form to convey to the minds of others the truths in connexion with the subject as I see them. I shall deeply regret if my imperfect manner of expression fails to convince in reference to a subject of such interest and importance.

Camp, Arcopocottah,

24 May 1848.

(signed)

T. J. Finnie,

Cotton Planter.

(No. 621.) Revenue Department.

EXTRACT from the Minutes of Consultation, under date 10 June 1848.

Read the following letter from Mr. T. J. Finnie, cotton planter, Tinnevely, forwarding a specimen of churka-cleaned Tinnevely cotton, and suggesting that Government will allow him to encourage the production of such an article to the full extent that may seem desirable.

[Here enter 24 May 1848.]

Para. 1. MR. FINNIE observes, with reference to the sample of churka-cleaned Tinnevely cotton which accompanied his letter of the 24th May last, "that if it could by any possibility reach England *via* America, it would be a good, fair quality of American cotton;"

296—Sess. 2.

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See Mr. Finnie's letter, para. 5.

II.

Madras.

Para. 2.

meaning thereby, as the Government understand, a marketable article which would secure in the Liverpool market the price of fair quality American cotton; and the Right Honourable the Governor in Council has also received, with much satisfaction, the assurance given by Mr. Finnie, that the whole crop of Tinnevely might be "thus cleaned, provided that purchasers can be found willing to give a reasonable price for the article."

Para. 5.

Para. 7.

2. Adverting to the statement, that he "has engaged a quantity of this article for shipment to England," and to his request, "that the Government will allow him to encourage the production of such an article to the full extent that may seem desirable," the Government consider it necessary, before issuing orders on this point, that a communication should be made to Dr. Wight with reference to the Honourable Court's instructions of the 26th November 1845, No. 24.

Para. 7.

3. The Governor in Council also desires to have before him, before he can sanction large purchases, a clear business-like statement, showing the actual quantity of cotton, cleaned as the sample, and of the same quality, which Mr. Finnie can command within the ensuing six or twelve months, the price to be paid to the grower per candy, the cost per candy of packing, transit to the port, freight, &c. The data, in fact, on which he bases the statement, "that a safer remittance cannot be made."

4. It is obvious that the Honourable Court, and the manufacturer, must have the most ample information on these points before any conclusion can be drawn by them on the great practical question whether Tinnevely can compete with America as a cotton producing country, and whether the market in Tinnevely can be depended upon for a supply of cotton of good quality for the British manufacturers, both as regards quantity and price.

5. The Governor in Council will be glad to receive from Mr. Finnie the further information now requested, at an early date.

6. His Honour in Council resolves to request the Chamber of Commerce to favour the Government with their opinion of the market value in England, under ordinary circumstances of trade, of the sample of Tinnevely cotton forwarded by Mr. Finnie, of which a portion will be sent to them. A copy of Mr. Finnie's letter and a copy of the foregoing resolution will be furnished to Dr. Wight, together with a portion of the sample of cotton, with a request that he will communicate his views on the subject.

(signed) J. F. Thomas,
Chief Secretary.

(No. 622.)—Revenue Department.

To the Chamber of Commerce.

Gentlemen,

I AM directed by the Right Honourable the Governor in Council to transmit copy of a communication from Mr. Finnie, cotton planter, Tinnevely, together with an extract from the Minutes of Consultation of this day's date, and to request with reference to the concluding para., that you will favour the Government with your estimate of the market value in England, under ordinary circumstances of trade, of the accompanying sample of Tinnevely cotton forwarded by Mr. Finnie.

Fort St. George, 10 June 1848.

(signed) J. F. Thomas,
Chief Secretary.

(No. 126.)

From E. B. Thomas, Esq., Collector, to J. F. Thomas, Esq., Chief Secretary to Government, Fort St. George.

Sir,
Para. 1. I HAVE the honour to forward a report* from Mr. Finnie, of 15th ultimo, regarding some of his operations at Aroopocottah, and as the Government may expect me to accompany it with some observations regarding the cotton in this district, I shall do so as briefly as practicable.

2. Though I think some of Mr. Finnie's suggestions are practical and useful, I am unable to concur, as far as my judgment and experience goes, in the correctness and propriety of them.

* Also an original report, received 15th April.

them all. I would strongly support Mr. Finnie's proposal, that Government should set up a few small thrashers, and some cheap simple presses in different localities. I should suggest their being first set up in Mr. Finnie's immediate neighbourhood, where he could overlook them, and teach their use; eventually removing them, when well understood by the ryots, to distant places, where most needed. If Government approve, Mr. Finnie may be called on for an estimate, and six of each kind might be established free at first, and at a small charge, for their use, by-and-bye.

3. I think ample trial has shown that the American gin, as now constructed, is not suitable to the India cotton or ryot; it is too complicated and costly, and tears and injures the fibre. I would recommend that sanction be given me to sell (if possible) one, now lying in pieces, at Tutacurin, useless ever since it was purchased, and going rapidly to decay.

4. I do not concur with Mr. Finnie in thinking that the inferior quality of the cotton, and its dirty and adulterated state is the result of "deliberate design and system," nor that all the best cotton is used in the country, and the worst only exported, or that the European agents at Tutacurin and elsewhere buy only the trash and refuse cotton. I believe all the agents at Tutacurin are careful and rigorous in excluding bad and dirty cotton from their contracts, and make every effort to secure good. I have been at various times for several years into all their screws and warehouses, and have seen much very good clean cotton, and which I heard fetched a good price at home.

5. The cheapness of labour in India and the necessity of adapting our efforts and machinery to the means and the intelligence of the ryots, alluded to by Mr. Finnie, are, I think, self-evident truths, felt and acted on generally. Neither do I conceive that a market has entirely to be created, as Mr. Finnie seems to argue. Cotton in Tinnevely finds a ready sale, and the price varies but little from year to year; cultivation of the new Orleans and better kinds of cotton with greater care and cleanliness in picking and packing, are, I think, the main points to be arrived at, and they will only be attained by patient perseverance and practical experiment amongst the people; so far as cleaning the cotton is concerned, Mr. Finnie is now so employed; but I think larger sowings of better sorts, and attention to the cultivation of cotton by Mr. Finnie and others would be of much practical benefit.

6. A most useful and practical experiment is about to be made near the coast at Tutacurin, which if carried out, will, I think, do more to improve the cotton hereabouts than much writing; an European agent and merchant of Messrs. Line's house at Madras proposes to sow (by means of the ryots themselves) 2,000 cawnies of light waste land with new Orleans seed, promising the ryots to take the whole produce at a fair price from the growers.

7. What is meant by the "co-operation and organised system" which Mr. Finnie requests of the manufacturers at home, and the Government here, I do not exactly understand (as alluded to in paras. 11, 12, 13, and elsewhere), but I suppose from Mr. Finnie's remarks generally that he intends a paid general agent, for the purchase of all cotton, recognised by Government; such a selection and arrangement, if desirable, must I conceive be left to the choice of the merchants and manufacturers themselves, and to private enterprise in various quarters; and such agency, with the advantage of competition superadded, already exists in Tutacurin, where there are no less than six agents and 12 screws established, all buyers of cotton, as good as they can get, not refuse only.

8. I need scarcely add, that I have felt it my duty ever since I have been in this province, and even before the subject excited the prominent interest it now does, to forward to the utmost of my means and opportunity every effort made, or means proposed for encouraging and improving this most valuable production, and I should continue to give it my earnest consideration.

See letter dated
19 June 1843.

Tinnevely Collector's Office, (signed)
2 June 1848.

(signed) E. B. Thomas, Collector,

To J. F. Thomas, Esq., Chief Secretary to Government, Fort St. George.

My dear Mr. Thomas,

Camp, Aroopocottah, 28 March 1848.

KNOWING that you, as well as the Honourable the Governor, are much interested in all proceedings that have for their object the advancement and welfare of this country, and particularly just at this time when the subject of cotton is attracting so much attention, anything that has a tendency towards the realisation of the hopes that are entertained in reference to it will, I am sure, be interesting to you, and I hasten to report to you, in this form, the proceedings of a meeting I have just had with the chief cotton brokers of this place. You are aware that I have taken a stand in favour of accomplishing our object through and by the co-operation of the people, from which I would not be driven, though much discouraged. My plan has been to conciliate and interest the people in the matter, and I consider the prospective results of our meeting to-day are more important than all the cultivating and ginning operations that have been conducted at so ruinous a cost.

II.
Madras.

2. I explained my views to the intelligent men assembled; told them of the desirableness of attending to the cleanliness of the cotton of this country, that it might find an extensive and indeed unlimited market in Europe. They fully understood it, and entered heartily into the subject, and said that all that was required to ensure cotton of the purest quality was a market for the article. I explained my plan of an European agency for the encouragement of the measures which Government had adopted to induce more care in gathering and cleaning the article, and said that I was willing to give more for a pure article than for the mixed dirty one. They said that they would supply me with the pure unadulterated cotton at a fair rate, but that they could not change their own mode of procedure in regard to the cotton, for which they had contracts (of course not). I asked them what they thought of the gin; they all cried it was a good machine, but too expensive for them; that they could not use it. "How do you like the thrasher?" "Oh, that is an excellent machine; we will use that to take the dirt and trash out of the cotton we supply to you, but we cannot use it on the contract cotton. The thrasher is a good and cheap machine," they continued; "one will keep a great many churkas at work; besides, it loosens the cotton on the seed, and enables the churkas to do more work." That I told them was just what I wished to ascertain, and the business was instituted, not for the advantage of Government, but for the advantage of the people; that Government merely wished to prove the thing practicable, and induce the rich men in England to send their money here to encourage them, as well as the ryots to take more care in preparing their cotton; and that if I could send home a few hundred candies to show the quality and the price at which it could be procured, I was sure, if it was satisfactory, that we might have any amount of orders we liked. "You shall have it, sir," all vociferated. One of the principal men then proposed that I should give them the use of the gin-house and the thrasher for one or two days; they would bring their own cotton and their own churkas and people; the cotton should be put into the thrasher first, and then churkaed, and they would then be able to tell me the cost of their own mode and this new one, and ascertain the relative advantages of each, and could then determine on the course they could pursue for our mutual advantage.

3. I never saw people more enthusiastic; I never saw them so confiding, so open, and so free from dissimulation; they seemed to enter into the subject as business men. I explained to them the mode in which business ought to be conducted for the just interest of all parties, to which they assented, and expressed their gratification that a gentleman had taken the trouble to explain such matters to them, and that he sent for them, and talked to them himself instead of sending a servant to explain his views, and to make business arrangements with them; and they said that as I was evidently sincere in the advice I had given them, and it was to their advantage to comply with my wishes, they would do so cheerfully; they would give me the results of the experiments conducted by themselves and with their own people; they would ascertain a propitious day for commencing the use of the thrasher, &c. I hope soon to have the pleasure to report the result. If it is satisfactory, I shall at once set them to work to supply me with a few hundred bales of thrasher churka-cleaned cotton for shipment to England for the information of the manufacturers there, and I rely confidently on the support of Government to the plain and simple measures I adopt, believing, as I do, that it is the only way we can ever accomplish that which has been so long attempted at so great a cost. If it succeeds I shall be glad, and shall feel it my duty to remain here to complete the interesting experiment; if it fails, I shall be satisfied that nothing is to be effected, and I shall then consider it my duty to cease to eat the "Company's salt" as a non-productive servant, and return to my native land.

(signed) Thos. James Finnie.

TRANSLATION of an Address presented to Mr. T. J. Finnie by the undersigned Cotton Cleaners (or Gin-house Men)

In order to ascertain the actual charges incurred by cleaning the cotton according to the method suggested by you, we purchased some cotton of the first and second sort, and cleaned it by means of your thrasher; the result is, that the machine removes much of the dirt, &c., and so loosens the cotton on the seed that the operation of the country churka is facilitated when subsequently applied to it. If there are any persons that can offer a proper price for the cotton of superior quality, the thrasher in question would be much used, if it is supplied to us gratuitously, and so modified as to be worked or turned by two persons, and half the size of the present one (which is too large), to be made for the use of each native gin-house, it would be of immense advantage in separating the dirt from the seed cotton without much expense; it proved to be very useful under trial. If the said thrasher be given to us, we will purchase pure paroothee (seed cotton), and separate the seed from it, adding only a reasonable profit to the actual cost and charges, and supply the European gentlemen with pure unmixed punjee (cleaned cotton) at the market value of the article; and we would further remark, in reference to your suggestion, that if small presses are placed in our possession, we shall be glad to use them, and press the cotton into a smaller space and more convenient form than the present large bundles.

W. J. S. 22-2

We beg to record the result of the experiment tried with the thrasher and churka, which is as follows:

	Rs.	a.	p.	Rs.	a.	p.	
Cost and charges incurred for the first sort of cotton—							
Price of 1½ podhee of first sort seed cotton at 7½ rupees per podhee, weighing 26½ toolams				12	7	6	
Hire of conveyance for the said seed cotton		1	6				
Ditto for persons turning thrasher		2					
Ditto for weighing cotton		4					
Ditto for turning country gin or churka*		1	4				
Cloth and twine		3					
Packing charge		1					
				1	15	6	
Deduct value of seed separated from the cotton				2		6	
				12	6	0	
Price of 1½ podhee of second sort seed cotton, at 6½ rupees per podhee, weighing 26½ toolams				11	6		
(Hire of cooly for conveying the said cotton, four annas)							
Hire for persons turning thrasher		2					
Ditto for weighing cotton		4					
Ditto for turning churka		1	3	8			
Cloth and twine		3					
Packing charge							
				1	13	8	
Deduct value of seed separated from the cotton				13	3	8	
				1	15		
				Rs.	11	4	8

	Toolams.	Palams.
26½ Toolams of first sort seed cotton when cleaned comes to	6	30
Seed	19	71
Dirt, &c. wastage	0	23
26½ Toolams of second sort seed cotton when cleaned comes to	6	0
Seed	19	56
Dirt, &c. wastage	0	68½

If you will be pleased to give us profit of rupees (1. 12.) one, and annas 12 per podhee of cleaned cotton in addition to the costs and charges above stated, we are ready to clean as much cotton as you would require.

(signed) Veravugoo Pillay, and Sixteen others.
April 1848.

(True translation.)

(signed) Thomas James Finnie, Cotton Planter.

TRANSLATION of an Address presented to Mr. T. J. Finnie by the undersigned Cotton (No. 403.)—Revenue Department.

To T. J. Finnie, Esq., Cotton Planter, Tinnevely.

Sir:—Your letter of the 28th ultimo, to the address of Mr. Chief Secretary Thomas, having been laid before the Right Honourable the Governor in Council, I am directed to inform you that the result of the experiments to which it refers will be looked for with much interest.

Fort St. George,

18 April 1848.

(signed)

H. C. Montgomery,

Secretary to Government.

At my request this cotton was not beaten, but I find it is essential, and to this we must add at the rate of Rs. 1. 5. 9. per candy of punjee (clean cotton).

II.
Madras.

From T. J. Finnie, Esq., Cotton Planter, to E. B. Thomas, Esq., Collector, Tinnevely.

Sir,

Para. 1. WITH reference to the accompanying demi-official report of a meeting I held with the people, I have the honour to submit the report of the cotton brokers, or churka cotton cleaners, showing the result of the experiment they tried with the thrasher and churka for cleaning and separating cotton from the seed, to be very favourable.

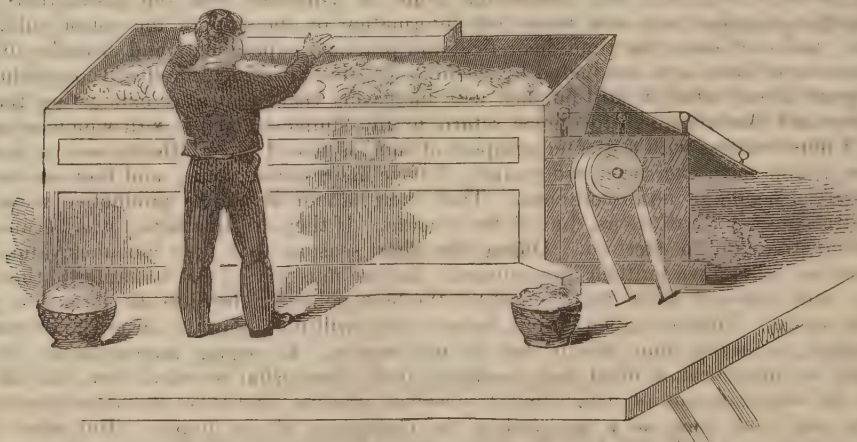
2. You will observe that the actual cost per candy, at the rate of this experiment, is (for the first quality) 52 rupees,* for the pure unadulterated cotton, which is exclusive of the brokers or churkamen's profit, and the carriage to the shipping port. The latter is one rupee and seven annas, making actual cost of rupees (53. 7.) fifty-three, and annas seven, and as the brokers have no fixed rate of profit, but rely on the fluctuations of the market, we may reasonably calculate on being able to insure a supply of the superior quality at from 55 to 60 per candy,† of 500 lbs. delivered at the shipping port.

3. I have shown you in a former report the mode in which the business is conducted, the process of mixing the refuse of the cotton, which is used for domestic consumption, with that which is sold to the European agents for export. I have pointed out the impossibility of the general adoption of the gin by the people in consequence of the expense,‡ even if the gin-houses and wear and tear are omitted in the estimate, and it is clear to my mind after careful and patient investigation for years, that we must resort to a means more consistent with the habits of the people, and more on a level to their means.

4. The dirty condition of the cotton which this country supplies to the exporters is not the effect of carelessness, or of the inefficiency of the appliances used in its manipulation, but is the result of a deliberate design and systematic procedure, which may be stopped by discouragement. The fact is, none of the good cotton of this country is exported; every particle is in a greater or less degree adulterated, and the first quality consumed in the country for domestic manufactures. The people have proved that the churka can turn out the cotton as clean as the gin can, while the staple from the churka is uninjured, and it has ever been acknowledged that the best constructed gins injure the fibre materially, and the gins I have seen in India tear it to such a degree as in some instances to make it useless.

5. To show what the thrasher is, I give a description of it by some extracts from the manufacturers' account of it. The machine was just coming into use when I left home, but I have used one in this country, and can testify to its value, and what is of far greater importance, the people acknowledge the usefulness and the aid of the machine in churking cotton.

PATENT REPEATING COTTON THRASHER.



* Which is, I think, more than the real cost. To this must be added the cost of beating the cotton, which I at first considered unnecessary, but now finding it essential, the sum of Rs. 1. 5. 9. must be added per candy of punjee (clean cotton).

† I have made arrangements to take a quantity of "first sort" cotton at 55 rupees per candy, delivered here.

‡ Cost of cleaning with the churka per candy of clean cotton,* Rs. 4. 14. 8.; cost of cleaning with the gin per candy of clean cotton, Rs. 10. 3. 10.; in both the cost of the machines and all things else but the actual labour are excluded from the estimate. I think the estimate for the gin may be reduced by one-third if the gins are properly constructed, and the coolies would work for the ordinary hire. We have to pay them three annas a day.

* Exclusive of beating and packing charges which amount to Rs. 2. 2. 9. per candy.

EXTRACT.

Para. 1. THE subscriber respectfully calls the attention of cotton planters to a repeating cotton cleaner or thrasher, for separating the leaves, trash, and dirty particles from the seed cotton, before it passes to the gin.

2. It is well known that the price of cotton is in proportion to its cleanliness and quality; if it has many broken dead leaves and small trashy particles in it, it is worth, according to the greater or less quantity it contains, from one-and-a-half to four cents less than that which is clear and free from such impurities.

3. The repeating cotton cleaner is a strong, compact, iron-framed machine; it is set on the floor in the cotton loft, above the gin, so placed as to throw the clean seed cotton down into the hopper of the gin. It runs very light, with a slack band of four inches in width, driven by the same drum which drives the gin, and with the same speed.

4. This machine makes the cotton so loose and lively, that the gin runs much lighter and gins faster than it will with the cotton as it comes from the field; and, owing to the looseness of the cotton after it has been cleaned of the trash, it was fully ascertained that it required rather less power to drive the cleaner and the gin than it did to gin the cotton in its raw, uncleaned state. They are very strong, and not liable to get out of order when managed by the most awkward negro. To feed the cleaner is light work for a weak, steady hand; the operation is simple. A boy throws a quantity of seed cotton into the hopper, and after it has revolved for about two seconds or more, according to the trashiness of the cotton, he draws a string, which opens the horizontal door, and the cleaned seed cotton passes out the dead leaves, dirt, and trashy particles, having passed through the open grates and sieve into the receptacle below. The cotton ought to be well dried; the drier it is the better.

5. These machines are made with two, and some with three cylinders.* Both kinds answer the purpose, as the diameter of those with two is larger than those with three cylinders. The latter is preferable for very trashy cotton, but costs proportionally more.

6. Now let us take a view of what has been done during the last 60 years for the improvement of cotton in India, and observe the results, which are absolutely *nil*, and solely because the efforts have been made by a course of procedure above the native mind and means. We must be content to work with the people; we cannot hope to bring them to our views and means at once. I have shown in a former paper that the means which we adopt for separating the seed from the cotton in America is economy there, while the same means adopted here is the wildest extravagance, from the paucity of labour and wealth of the planters in America, and the superabundance of labour and the poverty of the ryot in India.

7. As early as 1788† the Honourable Court of Directors sent out instructions to the authorities to collect and send home full information on the state of the cotton culture and trade; and ever since that time theoretical and practical experiments and crusades in cotton improvement have been conducted by scientific and practical men for the accomplishment of the great object, which is still pursued with increasing zeal; and, after exhausting European science and American skill, we must return to the simple elements with which we set out, and I must confess with a greater prospect of success than I have hitherto seen or heard of. These people have ever been under-rated; I have under-rated them; and they are too often treated as people of no discernment. That their labour is not so productive as in other countries is no fault of theirs, but of the climate. If they are apathetic, it is because they have no stimulant to exertion. During the short seasons that their labour is valuable, no people are more alive for their own interests; but we must try to add a chapter to their moral code, and convince them that honesty is the best policy. They are the shrewdest people in the world. They are called stupid, because they will not adopt the absurd improvements, so called, for saving time, which they do not require. In urging improvements on these people, we must bear in mind their condition, teach them what we want done, and aid them with the simple means of which they themselves approve, and leave the accomplishment to them, and then there is a prospect of the realization of our hopes. But when I hear able and talented men, who have spent a quarter of a century in India nominally among the people, talk of improving their operations by the introduction of machines, the original cost of which would make them so rich that they would never work another lick, I despair of prevailing, with my *ultra* simplicity of sentiment, on the important subject.

8. As I have often said, if the people were not engaged in separating their cotton from the seed in their simple way during the cotton season, they would be doing nothing; it costs them nothing. On the other hand, the plan of packing in the large loose bundles with

* The one we have has three cylinders.

† In the year 1783 eight bales of cotton were seized on board an American brig at the Liverpool custom-house, because it was not believed that so much cotton could have been sent at one time from the United States. Since then 2,500,000 bales have been produced as the crop of the United States, by the combination of climate, mental vigour, and physical force.

II.

Madras

with their feet is so defective, from the nature of the article being elastic, that it not only costs more than it would to press it properly, but is so badly done, that the cost of transit is greater, and the waste is considerable, and the trash the cotton gathers does it an irreparable injury. The people, however, cannot afford to pay for the presses to effect the improvement in this respect; but Government can, and I think ought to afford facilities in that respect.

9. To assist the people with the simple means they themselves desire, I propose to give them small hand-thrashers to separate the dirt and trash from the seed cotton, as well as to loosen the fibre on the seed to aid the churka; and, to remedy the defective mode of packing, I propose to have small plain cheap presses erected in the villages, that the people may press their cotton properly in neat small bales, say of 100 lbs. or 120 lbs., of which two will be a bullock-load: a bandy may be filled with as many as it will carry.

10. The ryots do bring the best article clean, and as free from dirt and trash as the majority of planters in America; but that we never see. The best is all consumed by the native merchants in their domestic traffic, as I have before said. If there was a market for the good article, we may, by *a priori* course of reasoning, reasonably expect an extension of culture, and consequent increase in the quantity, which will, more than anything else, tend to stimulate the people to exertion and improvement in implements, &c. The cotton which is taken to the independent native states is far superior to any the European merchants can get at the price at which they expect it. The refuse of the cotton which is consumed for domestic manufactures, is all reserved, to be mixed with the article which the European merchant takes for export.

11. The manufacturers and merchants have the remedy of this evil in their own hands; they are the fulcrum, and they hold the lever which must effect the improvement which is so much desired in the cotton of this country; and, without the co-operation of those who alone can effect the object, all our efforts are unavailing; and until a judicious and well-devised system is organized and encouraged by those who are most interested, all our labour is in vain. But let the manufacturers take up the matter as they would do if their supply was cut off from other quarters, and the long hoped-for benefit arising from the improvement of the indigenous cotton of this country may be gradually effected. Then, and not till then, will a change take place to create a sure market, which does not now exist, for the superior article, and the people will supply it. A small simple machine, the thrasher, as an aid to the churka, will effect much in cleanliness, at less cost than picking the trash out by hand; but without any other machine than the time-hallowed churka,* we can procure plenty of clean cotton. Let the manufacturers establish such a market, and Government will, I feel sure, make the arrangements essential to keep a well-cleaned article free from dirt in its transit to the shipping port. The small presses to which I have alluded, capable of packing the cotton in small bales, for the convenience of transit, whether on bullocks or bandies, will of itself be an important advance above the large loose bundles now in vogue.

12. I repeat and I urge the necessity of these considerations being placed before the manufacturers, and their co-operation solicited in the measures which can alone, I think, effect the object which they have so often and so forcibly presented to the Honourable Court of Directors. Until some system is established on a firm basis, I feel that I can do nothing. I am now an unprofitable servant to a liberal Government, and it is humiliating to know that I am so; but I believe such need not be the case. If my plans of procedure meet the approbation of Government and the encouragement of the manufacturers, I could aid them in getting the article they require. This country and people, as well as England, would be benefited, and I should have the satisfaction of earning the portion of the fruits of industry that might fall to my own lot, for I am not disinterested, (who is, in what they undertake?), but I am willing to labour in an humble capacity, to render all the aid I can to the accomplishment of the great object in view, and I would raise the Macedonian cry in behalf of these people, and say, "Come over and help us," by encouraging our productions.

13. But if you, the manufacturers and merchants of England,† will not come; if you will not lend us, the ryots of India, a helping hand, that we may supply your looms, which have ruined us with the raw material for the manufactures with which you supplant us in the markets hitherto open to us, we shall be driven to destitution. We were once protected in our manufactures, and the China market for the raw material was sacred to us; then our manufactures flourished, and our staple produce brought almost double its present value. However beneficial the opening of our ports to the world may have been to other nations, it is far from beneficial to us; our manufactures are destroyed, and the products of our soil are superseded. We should be better off if our ports were closed against all goods that are not made from our cotton. If our products are not encouraged, our rulers ought to protect us by import duties against the powers of steam, with which we cannot contend.

14. We,

* In endeavouring, since this was written, to separate the dirt and trash completely by hand, the people find that the thrasher is even more important than we at first supposed.

† In the present financial depression I do not think we need hope that the manufacturers and merchants of England will send their money here for such a purpose, without a guarantee from Government that the business shall be properly conducted, and a certain profit insured; but the success depends solely on the patronage of the manufacturers themselves. The business ought to be so conducted that we could make remittances to China or elsewhere in the great staple for shareholders; in fact, we must have a cotton agency established on a firm basis for the improvement of the cotton of this country.

14. We, the ryots of India, appeal to the manufacturers and merchants, and humbly point out an alternative—encourage our products, or give us protection, or we must soon cease to cultivate or trade in the article. We desire your aid and co-operation; we solicit your support, and we feel convinced we do not call on you in vain; then “Come over and help us;” though we are poor, we are willing to labour, and all that we ask is that the great “cotton lords” will take our produce, instead of that of a foreign country. We will make it clean, and free from all extraneous matter, as soon as a market is established for such an article; at present there is no such market, and it is our interest to make such an article as suits the markets now open to us. We say again, “Come over and help us.”

15. In the present state of the commercial world, when all confidence has been subverted, after a careful analysis of the various plans which I have thought of, I consider it prudent to consult others, and particularly those interested, before I propose any definite system of procedure.

16. I have presented an outline of what I think ought to be done; but the best mode of conducting the business requires the gravest consideration of the wisest heads, and I leave the subject in the hands of Government until the result of the reference to the Honourable Court is known. If we hope to accomplish anything, the business must be conducted on a large scale and in the most energetic and efficacious manner, to rouse the people from their lethargy, excite emulation, and force them to feel the futility of opposition, equivocation, and sticking for undue gains. We must ourselves be just and liberal to the people, and then make them be just to us, and cause them to feel that it is their interest to comply with our wishes in that which is reasonable and right. It will require the soundest judgment, the sternest heart, and the firmest nerve, and most indomitable perseverance, to conduct such a business to a successful issue; by success, I mean advantage to all concerned. No one man, perhaps, possesses all these qualities; hence the necessity of a community of interests, and these interests can only be concentrated by men engaged directly in the business as manufacturers and merchants, who alone can keep pace with the trade at home, and afford the manager here that information which is essential to the proper conduct of the business. While I maintain that Government ought to appear as little as possible in the actual commercial transactions of a country, I am aware that a Government so peculiarly constituted as this is, has much to do, not only in protecting its subject-tenants, but in opening resources to them, and teaching them that which is right. And now, all I have to say is, let us settle on some plan, and be sure we are right, and then “go-a-head.”

(signed) *Thomas James Finnie,*
Camp, Aroopocottah, Cotton Planter.
17 May 1848.

(No. 129.)
From *E. B. Thomas, Esq.,* Collector, to *J. F. Thomas, Esq.,* Chief Secretary to
Government, Fort St. George.

Sir,

Para 1. I HAVE the Honour to forward two more communications from Mr. Finnie, of same date, requesting, in one of them (para. 3), that an assistant be allowed him; and in the other, that a press, as per sketch,* may be made up at the arsenal in Palamcottah.

2. I would beg to support both these requests, as likely to be of practical benefit. A native assistant might be procured for about 12 or 15 rupees per month, and the cost of the press, when sanctioned, will be duly submitted to Government.

3. I doubt whether the arsenal at Palamcottah can make up a press from Mr. Finnie's sketch and description, without his personal superintendence; and perhaps a still more simple and economical plan might be adopted, of a plain small screw, made under the civil engineer's advice and direction; if Government approve, Mr. Finnie's present plan could be shown to Mr. Horsley, his opinion be taken, and both be submitted to Government.

4. It is not necessary for me to remark on other parts of Mr. Finnie's letters; I would merely observe, that a much larger quantity of good cotton than Mr. Finnie seems aware of has been sent home by European merchants from Tinnevely, for many years past; and that all cotton cultivation under European surveillance, whether Dr. Wight's, Mr. Finnie's, or any one else, must necessarily be carried on through native agency, the funds and skill alone being European, whether of Government or from individual enterprise.

(signed) *E. B. Thomas,*
Tinnevely, Collector's Office, Collector.
5 June 1848.

* Mr. Finnie's letter, dated 31 May 1848, and the sketch of the press, will be found in the section of Part II. of this Return, relating to “Efforts for the Improvement of Machinery.”

II.
Madras.

From *T. J. Finnie, Esq., Cotton Planter, to E. B. Thomas, Esq., Collector, Tinnevely.*

Sir,

Para. 1. CONSIDERING it vastly more important to attend to the improvement of the indigenous cotton which is produced throughout the country than to waste my time in producing an exotic in an oasis like the Courtallum Valley, I have the honour, therefore, to inform you, that, from the nature of the business I have in train here, I cannot attend personally to the cotton farm at Courtallum, however agreeable the climate, and however essential a change may be for my own health, after so long a residence in the hottest season of the year.

2. I would respectfully suggest the propriety of allowing the native superintendent now in charge of the plantation to plant some more cotton as soon as possible. I have directed him to do so, and you will oblige me by advancing him rupees (100) one hundred for the purpose. He will continue to report to me, and receive his instructions from me, as hitherto.

3. There is such a floodtide in favour of the success of the American cotton in this part of the country emanating from the scientific world, and even from the House of Commons, that I am borne along the stream; and, to show you and Government that it is not the fear of the labour that has influenced my views, I propose to have a cotton plantation here and one at Sevacauey, on as large a scale as Government may think proper to sanction; as it is impossible for me to attend to the details of both personally, I request that, if the farms are sanctioned, an assistant be allowed me to take charge of one.

4. I wish it distinctly understood that I oppose the system of large farms. I have always advocated the direct operation of the people on the matter. I have hitherto always had a little cotton planted by different ryots: I would now respectfully propose that native agents, ryots, be employed, on a monthly salary of from five to eight rupees per mensem, to insure them against loss, to induce them to plant the American cotton on their own land, the produce to be theirs, and the nicely cleaned and pure seed cotton to be taken off their hands at two rupees above the price of the native article at the time.

5. We could not establish any sort of a cotton plantation that would not cost rupees (150) one hundred and fifty, or (200) two hundred per mensem, and if we conduct the business, the cost will even be more than the produce, however successful, and the people will know no more of it at the end of five years than they do now; and indeed the enormous expense of the Government establishment will frighten them from the culture of the plant, though it should be successful; whereas the same sum expended in inducing the people to cultivate will bring the matter directly under their own influence, and, if success is possible, they will attain it, and a few thousand rupees laid out in this way per annum in the districts of Madura and Tinnevely for a few years will do more good than all the English botanical theories or American practice ever has or ever can effect. Conduct the business by and through the people, and if success is attainable, they will arrive at the culminating point much sooner and much cheaper than we can.

6. The plan of establishing farms on Government account is not mine, the one of working through the people is. I leave Government to take choice, and whichever is sanctioned, I shall prosecute with all the energy I possess.

(signed) *T. J. Finnie,*
Camp, Arcopocotta, Cotton Planter.

31 May 1848.

From *T. J. Finnie, Esq., Cotton Planter, Tinnevely, to Sir H. C. Montgomery, Bart., Secretary to Government, Fort St. George.*

Sir,

I HAVE the honour to ask permission to make the following remarks, which I send direct, that the omission may be read with the letter.

2. With reference to the 6th para. of my letter of the 17th May, where I remark that the results of the efforts to improve the cotton of this country are "nothing," I inadvertently neglected to make exceptions to the success which has attended the enterprise at Dharwar, and which is said to have been obtained at Coimbatore.

3. Permit me further to remark, that the success attending the operations at Dharwar may be accounted for thus. The climate is favourable; the matter was presented to the ryots; the seeds were sown, and they grew; the ryots saw that it would answer their views to cultivate the plant, and they adopted it. The "foot-roller" is the instrument used to separate the seed from the fibre in the Southern Maharatta country; anything would be an improvement on that. The American cotton succeeds at Dharwar, and the American gin is taken into favour by the people as its happy concomitant.

4. When I hear of the culture of the American cotton by the people of Coimbatore, and its influx into the markets of the world, I shall then be too glad to make a positive exception to that favoured spot; and when the gin is recognised as the succedaneum for the churka, I shall gladly acknowledge the error of the views I now entertain in reference to its usefulness in this country; and now that I consider I have discharged a duty in placing on record the matter which is already before Government, I shall endeavour quietly to carry out the plans which seem to me most likely to succeed, or whatever Government is pleased to direct.

Camp, Aroopocotta,

12 June 1848.

(signed) T. J. Finnie,
Cotton Planter.

From Surgeon R. Wight, Superintendent Cotton Farms, Coimbatore, to J. F. Thomas, Esq.,
Chief Secretary to Government, Fort St. George.

Sir,

I HAVE the honour to acknowledge the receipt of minutes of consultation in the revenue department, No. 621, under date 10 June 1848, accompanied by a sample of cotton furnished by Mr. Finnie.

2. The quality of that sample is such as, I presume, would be called in Liverpool "Good Tinnevelly," and in average states of the market would realize prices varying from $3\frac{1}{2}d.$ to $4\frac{1}{2}d.$; in more favourable states it might fetch as high as $5d.$ or $5\frac{1}{2}d.$, it being about the same quality as 300 bales of gin-cleaned cotton I sent home from this the beginning of 1847, when prices ranged, unusually high, which sold for $5\frac{1}{2}d.$ six bales of American cotton, purchased from ryots, sold at the same time for $6\frac{1}{2}d.$

3. Cotton cleaned by the gin has always hitherto sold higher than when churka-cleaned, which I attribute to two causes: first, it looks better, and is easier carded; and, second, it is freer from sand and other impurities, which add to the weight, but detract from the value, being all thrown out as trash in the manufacture. This source of deterioration is very clearly shown by the fact that first-rate seed cotton, cleaned by the gin, rarely yields full 22 per cent. of wool to seed, whereas, when cleaned by the churka, it gives 25 per cent. A similar result is obtained by the operation of the thrasher, which generally removes from $2\frac{1}{2}$ to 3 per cent. trash from even very clean samples of churkaed cotton.

4. Mr. Finnie's sample, on which he grounds the opinion, "that if it could by any possibility reach England *via* America, it would be passed as good fair quality of American cotton," is, it would appear, an unfaithful one, the particles of trash having been separated by the hand, and thereby enhancing its value, as compared with the mass from which it was taken, by possibility as much as $\frac{1}{2}d.$ per pound. This is much to be regretted, as it does not now afford a true criterion by which to judge of the market value of the mass, which, on a large investment, could not be so picked, except at a ruinous charge, and affords grounds for apprehension that Mr. Finnie has not given proper consideration to the import of his language when he "pledges himself ultimately to have the whole crop of Tinnevelly thus cleaned, provided purchasers can be found willing to give reasonable prices for the article." I further apprehend he has never paid much attention to the differences between Indian and American cotton, otherwise he would scarcely have ventured so confidently to "aver" that such cotton, if sent from America, would in England be considered "good fair" quality of American cotton; at least, I know for myself I had no difficulty in detecting the shortness of its staple, the mark by which English brokers distinguish Indian from American cotton, and thereby determining its kind before reading the accompanying statement; and native merchants here, without hesitation, valued it at prices varying from 39 to 40 rupees the candy; but they will not value our American cotton, alleging that it has not yet obtained sufficient currency in the market, showing that they, too, at once recognised the difference; and, lastly, the circumstance of six bales of Indian grown American cotton selling in Liverpool 1d. the pound higher than a batch of first-rate Indian cotton, affords substantial proof of its superiority, and the higher estimation in which it is there held.

5. Adverting to the second para. of the minute, I have again perused the Honourable Court's despatch of the 26th November 1845, No. 24, and find that the investment therein ordered is distinctly limited to gin-cleaned cotton, and therefore infer, that the Indian Government is not authorised to send churkaed cotton purchased in the local markets. At a subsequent date,* while much discussion was going on as to whether the saw-gin "cut" and injured the staple, I solicited permission to purchase about 500 bales of churkaed cotton, to send along with the ginned, with a view to having the relative advantages of the two modes of cleaning tested on an extensive scale by the spinner.

Permission.

* See my letter under date 28th July 1846.

II.

Madras.

Permission was granted,* and the proposal approved by the Court of Directors,† with one modification, namely, that it should be accompanied by an equal quantity of the same quality ginned; the seed cotton to be purchased; and, with a view to insuring the comparison being complete in all its parts, one moiety to be cleaned by the one, the other by the other machine. The order was for 500 or 600 bales of each, which I am now exerting myself to the utmost to complete, but fear I shall scarcely be able to do so within the year, as I shall by-and-bye have the farm crop of American cotton to gin, which may occupy the gins several months. Under these circumstances Mr. Finnie's aid would be of service, provided he can, in the first instance, purchase seed cotton, and clean one-half by the gin, the other by churka; but it will not be complying with the Court's orders to purchase and send bazar-cleaned cotton unaccompanied by gin-cleaned of the same quality.

6. With reference to the 3d paragraph of the minute under reply, the following data may prove useful, when deciding on the value of Mr. Finnie's proposal for encouraging the production of this superior article by a large purchase. We purchased last year 32 candies and 90 lbs. of churka-cleaned cotton, costing Rs. 1,297. 2. 1. That quantity lost, in passing through the thrasher, 490 lbs. (a small fraction over three per cent.), leaving 15,600 lbs. or 52 bales. The above sum divided by 52, gives Rs. 24. 15. 1. per bale, or nearly 2d. the lb. as the prime cost of the cotton. The charges as per margin‡ are exclusive of sea insurance, but including all others, down to the broker's sale commission, will amount to Rs. 18. 11. 9. per bale, or nearly 1½d. per lb., raising the total cost and charges, when sold in Liverpool, to within a very small fraction of 3½d. the lb. This cotton was clean and free from trash, but though the best procurable that season, was inferior, being coarse, and rather short stapled. It is not improbable, therefore, that in the present depressed state of the market it may barely cover its cost, giving a remittance at par; but, on the other hand, a rise in the market may so far alter the case as to return a profit of 20, or even 25 per cent. But, however this particular speculation may turn out, I should never esteem such cotton, costing, charges included, 3½d. or 3¾d., as the cotton market now usually ranges, as promising more than a par remittance, the loss of interest or capital invested between the dates of purchase and sale going far towards neutralizing any profits arising from the chance event of a favourable market.

7. To show that I do not undervalue Mr. Finnie's sample, I send herewith, for comparison with it, a faithful sample of bazar cotton valued at about 38 rupees per candy, one of cotton churkaed for us (towards the completion of the Court's order), another of the same thrashed, and one gin cleaned from the same heap; and, lastly, I send two samples of American cotton purchased from ryots, one gin the other churka cleaned.

8. These various specimens will show that, whatever difference may exist as to quality, the Aroopocottah one has no advantage as regards cleanness, always bearing in mind that it is hand-picked, and therefore that the "new regime" cleaned cotton is not cleaner than the old, and does not therefore promise to provide a safer remittance than the old has done for the last 20, or perhaps 50 years; and that, although Mr. Finnie has only now become acquainted with it, it is very far from being any novelty in the English market; hence, that so far as simple quality is concerned, the arrival of 50,000 bales in Liverpool to-morrow would not be looked upon as an event of any commercial importance, however welcome such a supply might otherwise be.

9. With respect to Mr. Finnie's letter, which reads to me as in some measure furnishing a rejoinder to mine of the 2d instant, I am at a loss how to approach it. I shall indeed feel most sorry should I at any time be so far thrown off my guard as to treat his statements with levity, or want of respect; but in truth the whole style and tenor of his communication puts one so much in mind of the humorous dogma of "much ado about nothing," and sage apothegm of "much cry and little wool," that I fear I shall scarcely be able to preserve due decorum while complying with the orders of his Honor in Council in communicating my views on the subject.

10. The first para. of Mr. Finnie's letter shows that, though he has now resided nearly two years in the midst of an active cotton-growing population, he has only lately paid attention to the subject, and begun to learn what has been, perhaps for centuries, their practice

* Extract Minutes of Consultation under date 16th September 1846.

† See Despatch, No. 16, under date 14th July 1847, page 149 of this Return.

	Rs.	a.	p.
Half-pressing, ropes, ginnies, &c.	1	10	4
Cart-hire to Cauverypoorum	2	1	4
Full screwing and shipping	1	8	0
Freight	9	12	0
Dock and town dues, cartage, portorage, warehouse rent, fire insurance, brokerage, &c.	3	12	5
Rs.	18	11	9

practice in conducting their commercial operations, and their "means and capacity" for preparing their staple article of trade for the market. Having at length been roused from his lethargy, he has hastily begun to inquire, and having hurriedly become very confusedly and imperfectly acquainted with some of these, he instantly assumes that every one else is as ignorant as himself, which is scarcely just towards those who have gone before, and, without a moment's reflection or further inquiry, has the honour, the pleasure, and the satisfaction to forward, as an extreme novelty, a specimen of cotton (such as, I think, I am safe in stating is to be met with every day in each of the weekly village fairs or markets throughout this district), cleaned by the churka alone. How else could it be cleaned by the churka than alone? Has Mr. Finnie never until now seen a churka at work that he should wonder at a matter so simple? Or is there something new in his mode to which he refers under the designation of new regime? If so, it ought, I conceive, to have been stated. But whether there is or not, I saw the Government screws in Palamcottah in 1827 (21 years ago), pressing just such cotton as this; and again in 1836 I saw those of Messrs. Hughes & Baggot pressing such like cotton in both Tinnevely and Tutacoreen; and, lastly, the specimen is not better, if indeed so good, as much cotton I have seen leave this district bound to Tinnevely and Bombay, whence, I am told, it is respectively exported as "Tinnevely" and "Broach."

11. Paragraphs 3, 4, and 5 exhibit in a favourable point of view the highly persuasive powers of Mr. Finnie's eloquence as effecting the complete and sudden reformation of a people proverbially the least changeable of any in the world. "Hitherto their cleaning houses have been filled with rubbish, and a compound of villainous smells, and now they are clean and neatly matted," all owing to Mr. Finnie's well-directed "shafts of ridicule." How much of this is imaginary I am unable to say; but I know that in Coimbatore, where the people are much alike, the cotton is as clean, and yet it is all churkaed in their own houses. Here there are about 150 families churkaing for us, each of whom carries home one or two maunds at a time, and brings it back when done, taking away a fresh supply. This enviable power of suddenly carrying conviction to the dull imperturbable native mind seems to be a very recent acquisition, and has worked with marvellous rapidity, as, some 14 months ago, Mr. Finnie consulted me, officially as to what measures he should adopt to overcome the obstinacy of native dealers in withholding their cotton at reasonable prices; and again, in a private note, dated the 4th May 1848, he addressed me to advise him on the same subject. Only 20 days after, he pledges himself to Government "ultimately" to have the whole crop of Tinnevely cleaned according to a particular very superior pattern, though for the whole previous year and half he could not induce one of the holders to part with a few scores of the candies of their cotton on anything like reasonable terms. Is it possible, under such circumstances, to attach any weight to his pledge? For myself, I hesitate to do so.

12. The mountains of opposition so prominently adverted to in the 6th para. are an enigma to me, and a still greater one is their sudden dispersion. On the 4th of May they existed in all their pristine grandeur. On that day he says, "Tell me, shall I purchase cotton at eight rupees?" And on the 24th they seem all, like summer clouds, to have melted into air, or been cast into the sea, he in that short interval having effected a "pacific revolution in cotton among the democratic republicans of Hindustan."

13. The matter of the 7th para. has been already adverted to, and the 8th I pass over, as it refutes itself, there being no cotton grown in the jungles. The 9th I confess I do not understand; it is too grandiloquent for my humble capacity; but, as an organized system is spoken of, though not explained, my experience enables me to throw some light on that idea.

14. The system pursued here is based on the fact, that carefully picked cotton is never dirtied or mixed with trash in passing through the churka or gin. Acting on this fact, we systematically reject every load of slovenly ill-picked cotton, and now it rarely happens that a bad load is offered out of the thousands brought for sale. Owing to this care, our cotton will doubtless fetch higher prices than the average sum of native cotton sent to England; but at the same time we have to pay a little higher for it, probably from a half to one rupee per candy more than native merchants give, which we find enough to secure for us the pick of the market. By thus buying none but the best, we are saved from the necessity, common among native merchants, of getting rid of inferior qualities, by mixing them with superior ones, but in such proportions only as not to reduce the whole below a certain well-known standard. Their roguery, however, is not limited to that minor degree of unfair trafficking. Some years ago we had several bales of damaged American cotton, which I did not think worth the cost of sending home, and offered it for sale in Coimbatore; it was immediately purchased at the high figure of 50 rupees the candy. I was afterwards induced to inquire the purpose for which it was bought, and was told, to mix with some inferior very short stapled native cotton, its long staple enabling them to pass off the other at full prices as first sort: such being the morality of native cotton dealers, I do not anticipate much permanent benefit from either Mr. Finnie's newly organized system, or from his eloquence, whatever he may think to the contrary; but the truth is, the natives are quick and shrewd observers of character, and know how to turn it to their own advantage.

II.
Madras.

tage. They have long refused to deal with Mr. Finnie, no doubt expecting to force him to give high prices: having at length got tired of that, and finding no other purchasers, and seeing moreover his ignorance of much of their business, and his openness to flattery, are now, through that medium, trying to gain their ends by leading him to suppose that his eloquence was so very convincing, that whole provinces are already profiting by it. He appears to have fallen into the trap, has engaged a quantity of the article for shipment to England, and requests Government to allow him to encourage the production of the article to a large extent, but without giving any specific data on which to ground a Government resolution.

15. In thus criticising Mr. Finnie's letter, I have perhaps taken too great a liberty, and rendered myself amenable to censure: should his Honor in Council be induced to take this view, I trust he will permit me to urge, in exculpation of my fault, that the letter is dictated in the most inexplicit terms, and addressed to persons less conversant with the subject than it is my duty to be; and that, did I neglect to guard the Government against being misled by statements so loose, and displaying so little acquaintance with matters to which they refer, and with what the writer is supposed to be familiar, I should fail in an essential part of my duty as head of this establishment. I have already most unwillingly felt it my duty to solicit attention to the want of exertion on the part of Mr. Finnie towards advancing the objects for which he is employed, and as I conceive his present letter more than confirms all I have there advanced, I have taken advantage of it to prove my allegations, by pointing out, that up to a very recent period, he has never given his attention to that portion of his duties, and is totally unacquainted with them. For a long time he had been unable to purchase even a few candies of seed cotton on which to employ his gins, and within a few days after he has the assurance to pledge himself to an impossibility, it being impossible, on a large scale, so to clean carelessly ill-picked cotton, so as to bring it to the high standard of his samples, and still sell it at a reasonable price; so that before he could fulfil his pledge, he must first be able to impress every picker in these districts with a conviction of the necessity of careful picking, and guarding against mixing dirty leafy locks, picked off the ground with that picked cleanly off the bushes, that being the great source of the injury designated leafy cotton. Having accomplished that first step in his task, the rest is easy, clean picked seed cotton never being dirtied while churkaing.

16. All this mighty reform is to be speedily brought about through Mr. Finnie's eloquence and well-directed "shafts of ridicule," which his flatterers, doubtless to serve their own purposes, are making him believe are a thousand times more persuasive than was the sermon of St. Peter on the day of Pentecost, the Apostles having only converted 3,000 souls, while Mr. Finnie is represented as reforming whole provinces, including a population of probably nearly half a million of inhabitants.

17. A slender acquaintance with the Hindoo character must satisfy every one who will take the trouble to reflect on the baselessness of these aspirations, and of the incapacity of the man who could so confidently put them for the guidance of the duties intrusted to his charge.

18. Begging leave most respectfully to apologise for the length of this letter, which nothing but the importance and deep interest I take in the whole subject could justify,

I have, &c.

(signed) R. Wight, Surgeon,
Supt. Cotton Farms

Coimbatore,
21 June 1848.

To J. F. Thomas, Esq., Chief Secretary to Government, Fort St. George.

Sir,

I HAVE the honour, on the part of the committee of the Chamber of Commerce, to acknowledge receipt of your letter of the 10th instant, with accompanying Minutes of Consultation of the same date, and a sample of Tinnevely cotton.

2. From the tenor of your letter, and the concluding para. of the Minutes of Consultation above acknowledged, the committee are led to apprehend that the only question directly referred to them is the valuation to be set upon the muster of cotton forwarded, and to this duty they accordingly confine themselves on the present occasion. But should it have been the intention of the Right Honourable the Governor in Council, when forwarding to them Mr. Finnie's letter *in extenso*, to invite the proffer of remarks upon it, the committee beg to say that, on your giving them an intimation to such effect, they will be very happy to communicate their views upon the general purport of that letter.

3. With respect to the value to be set upon the cotton, the committee find that the muster sent is very clean and of good colour, but that it is of short staple. Taking the present extreme range of London prices for Tinnevely cotton at 3*d.* to 4*d.* per lb., and

assuming

assuming that a parcel of uniform good quality would realise $3\frac{1}{2}d.$ per lb., the committee are of opinion that a parcel, the whole being similar to the muster before them, might be expected to realise the same price, viz. $3\frac{1}{2}d.$ per lb., and possibly might bring $\frac{1}{2}d.$ per lb. more.

(signed) *Jas. Ouchterlony*
Chairman.
28 June 1848

MINUTE.

I HAVE deemed it advisable, before I proposed any replies to the letters of dates, &c. noted in the margin,* to make myself acquainted with the voluminous correspondence which has passed on the subject of the introduction of American cotton, and the improvement of the indigenous plant within the Madras Presidency.

The whole question seems to me to have been very ably and fully discussed, and I have no intention of touching on it at present, beyond what may be requisite in briefly suggesting replies to the letters that remain unanswered.

In reply to No. 1, I think Dr. Wight should be informed that Government approve of the measures he has adopted, as reported in his letter, to encourage the growth of New Orleans cotton, by offering an enhanced price for all of it that shall be brought to him for sale, but that they are not prepared to sanction the announcement suggested in the 4th para. of his letter, for limiting his purchases to that description alone, which would not only be at variance with the instructions of the Honourable Court, but might injure the revenue to be derived from native cotton cultivation, and cause great distress amongst the ryots who have not yet turned their labour to raising the exotic plant. Para. 3.

This withholding of sanction would appear to be the more expedient, as I observe that Dr. Wight expressly says that "the cotton markets in the district have for the last two seasons been so sparingly supplied with purchasers, that only for the Honourable Court's order for 6,000 bales, the trade in native cotton would have been at a standstill;" a remark which, by-the-bye, I may here observe, seems to me to be somewhat at variance with the calculations shown in a subsequent para., in which allusion is also made to "the high prices the article bore in the local markets, especially at the beginning of the season." Para. 17.

Dr. Wight may be further informed, with reference to his letter under date the 26th of October last, forming an enclosure to the one under reply, that the topics embraced in it have been referred to the Honourable Court. It may be observed, that with the full disposition to support, by giving trial to his views, the concurrent opinion of others is equally entitled to the consideration of Government, and that the result of the Government farms hitherto has not been such as to authorise the establishment of additional ones without the Honourable Court's express permission.

I do not think that Dr. Wight's animadversions on, and criticisms of Mr. Finnie's sentiments, ought to be noticed in any shape. Letter 2 is entirely composed of them, and such is the verbose confusion of ideas in which Dr. Wight has indulged, that it is not possible to comprehend his opinion of the sample of cotton which was sent to him for that express purpose.

The only part of letter No. 3 which seems to call for immediate orders, is the Collector's recommendation, that "Government should set up a few small thrashers and some cheap simple presses in different localities," to which effect sanction may be granted, leaving it to the discretion of Mr. Thomas, in communication with Mr. Finnie, to settle the number of the different machines as well as their local positions.

Mr. Finnie's letters which came enclosed in the Collector's do not appear to me to require special notice. He has already been apprised, by Minutes of Consultation of the 10th of June, that Government must have before them full details as to prices, quality, quantity, &c., before they can sanction "large purchases;" and I must here add, that this information is obviously indispensable to a proper understanding of the matter, as it is shown by Mr. Thomas's letter that there are at present no less than six agents at Tutacurin, "all buyers of cotton as good as they can get." Para. 7.

This latter fact leads me to observe, that Mr. Finnie should be instructed to send his letters invariably through the Collector. He did not do so by that of the 24th of May, and the consequence is, that Mr. Thomas cannot understand what he (Mr. Finnie) alludes to

* No. 1, From Surgeon Wight, Superintendent, dated 2d June 1848. No. 2, From Surgeon Wight, Superintendent, dated 21st June 1848. No. 3, From the Collector of Tinnevely, dated the 2d of June 1848, with Enclosures from Mr. Finnie, Cotton Planter. No. 4, From the Collector of Tinnevely, dated the 5th of June 1848, with Enclosures from Mr. Finnie, Cotton Planter. No. 5, From the Chairman of the Madras Chamber of Commerce, dated the 28th June 1848.

II.

Madras.

to in some of the proposals, made in his communication of the 15th of that month, as to "creating a market in Tinnevely," where it is evident a very extensive one already exists.

I may close these hasty observations, by noting that the experiment about to be made by Messrs. Lines' house, spoken of in the Collector's letter, is likely to be highly interesting. My own confirmed opinion is, that the principle on which that experiment is to be made is the only true test of success, and that however satisfactory the apparent outturn of public agency, whether through farms or purchasers on behalf of Government, might be, it would form no criterion to judge by of the future, because the moment that public agency ceased, the stimulus would be exhausted, and every trace of it would rapidly disappear. On the other side of the question, I hold, that by encouraging the people to exert themselves, and by placing amongst them persons qualified to advise and instruct them in the cultivation, and cleaning, and preparing of their cotton, we do all that is practicable to obtain in the long run, however slowly, the desired object.

Copies of the replies to be sent to Dr. Wight and Mr. Finnie, grounded on this minute, should be transmitted to the Collector of Tinnevely, and he be assured of the gratification with which Government recognise his public zeal and exertions on this important subject.

(signed) *Henry Pottinger.*

15 July 1848.

(No. 814.—Revenue Department.)

EXTRACT from the Minutes of Consultation, under date 27 July 1848.

Read the following Papers:

From Surgeon R. Wight, Superintendent Cotton Farms, Coimbatore.

[Here enter 2d June 1848, No. 670.]

From the Collector of Tinnevely.

[Here enter 2d June 1848, No. 126.]

From the Collector of Tinnevely.

[Here enter 5th June 1848, No. 129.]

From Mr. T. J. Finnie, Cotton Planter in Tinnevely.

[Here enter 12th June 1848, No. 711.]

From Surgeon R. Wight, Superintendent Cotton Farms, Coimbatore.

[Here enter 21st June 1848, No. 746.]

From the Chairman of the Chamber of Commerce.

[Here enter 28th June 1848, No. 763.]

Minute by the Right Honourable the President.

[Here enter 15th July 1848, No. 857.]

Para. 1. THE Right Honourable the Governor in Council approves of the measures adopted by Dr. Wight, and reported in his letter of the 2d June 1848, to encourage the growth of New Orleans cotton by offering an enhanced price for all of it that shall be brought to him for sale; but he is not prepared to sanction the announcement suggested in the 4th para. for limiting his purchases to that description alone. Such a measure, he observes, would be at variance with the instructions of the Honourable Court of Directors, and might injure the revenue to be derived from native cotton cultivation, and cause great distress amongst the ryots who have not yet turned their labour to raising the exotic plant.

2. Dr. Wight states in the same paragraph, that "the cotton markets in the district have for the last two seasons been so sparingly supplied with purchasers, that only for the Honourable Court's order for 6,000 bales, the trade in native cotton would have been at a standstill," but the Government cannot quite reconcile this statement with that made in a subsequent para. (17), in which allusion is also made to "the high prices the article bore in the local markets, especially at the beginning of the season."

3. The condition of the roads, which is referred to in para. 6, is at present engaging the attention of Government,* especially the opening of a communication across the Anamalay Hills to facilitate the conveyance of the produce of Coimbatore to the coast at Cochin. Dr. Wight's observation† on this subject will be brought to the notice of the Board of Revenue for their early report.

4. Dr. Wight will be informed, with reference to the letter of the 26th October 1847, appended to his communication of the 2d June 1848, that the topics embraced in it have been

* From Board of Revenue, 12th August 1847, No. 377; Extract Min. Cons. 2d October 1847, No. 1079.

† P. 6 of letter, dated 2d June 1848.

Para. 6.

Para. 3.

been referred to the Honourable Court. It should be also intimated to him, that though there is every disposition to support his views by giving them trial, it must be remembered that the concurrent opinion of others is equally entitled to the consideration of Government, and that the result of the Government farms hitherto has not been such as to authorise the establishment of additional ones, without the Honourable Court's express permission. That part of the proposition, with the arrangements for giving effect to it, viz., the employment of additional assistants and apprentices, must therefore await the decision of the Honourable Court, but the Government purpose, in the meantime to request their special attention to the application of Dr. Wight on behalf of his two assistants, Messrs. Sherman and Cuxton, to whose cases he has again adverted in the letter under consideration, as well as on behalf of the East Indian lads already on the establishment of the cotton farms, to whom he has recommended an increase of salary. Mr. Sherman has been already employed on the farms for six years, and the Government are glad to learn the favourable testimony borne to his services by Dr. Wight, as well as to those of Mr. Cuxton, who has been on the establishment since 1st January 1847.

5. A copy of para. 5 of Dr. Wight's letter of the 21st June will be transmitted through the Collector of Tinnevely to Mr. Finnie, with instructions to communicate to Dr. Wight the extent to which he will be enabled to aid him in supplying the cotton ordered by the Honourable Court of Directors. It is observed, that under date the 28th August 1846, Mr. Finnie was instructed to afford Dr. Wight all the aid he required in respect of these orders of the Honourable Court.

Diary to Cons.
1st Sept. 1846,
Nos. 16, 17.

6. The Governor in Council approves and sanctions the proposition recommended by the Collector of Tinnevely in para. 2 of his letter of the 2d of June 1848, that "Government should set up a few small thrashers and some cheap simple presses in different localities." He leaves it to the discretion of Mr. Thomas, in communication with Mr. Finnie, to settle the number of the different machines, as well as their local positions, and requests that a bill for the actual charges incurred on this account may be submitted for special sanction.

7. Mr. Finnie has already been apprised, in reply to his letter of the 24th May 1848, that Government must have before them full details as to prices, quality, quantity, &c. before "they can sanction large purchases" of cotton. The Governor in Council considers this information indispensable to a proper understanding of the matter, as it is shown by para. 7 of Mr. Thomas's letter that there are at present no less than six agents at Tuticorin "all buyers of cotton as good as they can get."

Min. of Cons.
10th June 1848,
No. 621.

8. Referring to this fact, the Governor in Council desires Mr. Finnie may be instructed to submit his communications invariably through the Collector of Tinnevely. His omission to do so with respect to his letter of the 24th May has rendered unintelligible to that officer the proposals made in his communication of the 15th of that month as to "creating a market in Tinnevely," where, it is evident, a very extensive one already exists.

9. In reference to para. 3 of Mr. Thomas's letter, the Governor in Council requests that Mr. Finnie may be instructed to communicate with Dr. Wight as to the disposal of the American gin which is represented to be "now lying in pieces at Tuticorin, useless ever since it was purchased, and going rapidly to decay." Mr. Finnie should be required to explain the circumstance under which this machinery has been allowed to remain so long unused.

10. The Governor in Council requests that application be made in the prescribed form for the employment of a native assistant under Mr. Finnie, on a salary not exceeding 15 rupees per mensem, when the sanction of the Government of India will be obtained for the same. He grants authority for a press being made up as may seem most convenient, according to the sketch furnished in Mr. Thomas's letter of the 5th June 1848, and desires that a bill for the actual charges be submitted for special sanction. The sketch will be returned with these proceedings, as requested by Mr. Thomas.

11. In communicating these proceedings for the information and guidance of the Collector of Tinnevely, the Governor in Council resolves to assure Mr. Thomas of the gratification with which Government recognise his public zeal and exertions on this important subject.

12. Ordered, That paras. 1 to 5 of the foregoing resolution be communicated to Dr. Wight, with reference to his letters dated 2d and 21st June 1848, and also para. 9.

13. Ordered also, That paras. 5 to 11 be transmitted to the Collector of Tinnevely, and para. 3 to the Board of Revenue in the Department of Public Works.

(signed) H. C. Montgomery,
Secretary to Government.

II.
Madras.

From *F. B. Elton*, Esq., Acting Collector, to *J. F. Thomas*, Esq., Chief Secretary to Government, Fort St. George.

Sir,

Para. 1. I HAVE the honour to forward, for the consideration and orders of Government, the accompanying letter from Mr. Finnie, cotton planter, proposing, for reasons shown, that he be allowed to extend his supervision to Coimbatore.

2. Mr. Finnie's chief operations have hitherto been carried on at Aroopocottah, in Madura, but he has likewise a small farm for cotton cultivation at Courtalum, in Tinnevely, and the gin-house has also been built at Shevacausey, in this district. As he now proposes further to extend his operations to Coimbatore, it is for the consideration of Government whether his accounts should not be debited to the district in which the expense is incurred, and Mr. Finnie placed in communication with the Collector thereof; if he is to be supplied with money for contingent expenses in Coimbatore, it would seem necessary that the disbursements should be made there, as it could not be so conveniently sent him as it has hitherto been done; Aroopocottah, though in Madura, being near the Tinnevely boundary.

(signed) *F. B. Elton*,
Acting Collector,
Tinnevely, Trichendoor,
24 April 1849.

From *T. J. Finnie*, Esq., Cotton Planter, to *F. B. Elton*, Esq. Acting Collector, Tinnevely.

Sir,

I HAVE the honour to submit the following for your own and the consideration of Government.

2. The demand for the cotton of this part of the country is so rapidly increasing, and the prices offered now are so high, as very materially to affect the estimate, I last year set on the article, when well cleaned. I then made the maximum 55 rupees per candy, at which I succeeded in getting some cleaned by the people with their own churka in a superior manner; that price has since been given for the ordinary article, and is now the ruling price for the crop that is just coming in. The agents, I am glad to observe, stipulate for a well-cleaned article, which is the great object now to be attained in regard to the indigenous cotton. The crop of Tinnevely and Madura, which districts supply the greater portion of that which is taken to Tutacurin, is likely to fall far short of an average crop this year, in consequence of the want of rain, and the people here having been made aware of the importance of attention to cleanness, will not, I hope, require such constant personal attention as hitherto; and if I considered my own ease and comfort, I might now quietly fold my arms and see the work progress; but, as was my object from the first, I wish this to be the centre of the circle of my operations, and I desire to extend the system gradually, until it spreads over the length and breadth of the land, and with this view I respectfully propose that I be allowed to extend my supervision to the district of Coimbatore.

3. I wish to state distinctly that I do not desire to interfere with Dr. Wight's plans at all; I shall avoid his immediate vicinity. Let him pursue his own views to the limited extent to which they are applicable to this country; as he and I pursue a course diametrically opposite, we are not likely to clash. Let him cultivate at Government cost. I wish to introduce a plan among the people that will permanently extend their operations, and increase the produce of the country, at a profit to those whose business it is to look to their own pecuniary interest. My immediate object is to induce them to clean the indigenous cotton by the means at their command, in a manner more suitable to the wants of the purchasers; but if I find it practicable to induce them to cultivate the American cotton, I shall do that also, by which combined means we improve the indigenous article, and introduce a better quality which may gradually supersede the inferior plant.

4. If this plan meets the approbation of Government I shall cheerfully exert my best efforts to accomplish all that may be expected from the course of procedure; I dare not, however, hold out any hope of a very brilliant success at once; it is a national work, and to change the customs of a nation, permanently, is not the work of a day, but of the best efforts of successive dynasties.

(signed) *Thomas James Finnie*,
Cotton Planter,
Sevacausey, 18 April 1849.

(No. 483.)—Revenue Department.

EXTRACT from the Minutes of Consultation, under date 16 May 1849.

Read the following letter from the Acting Collector of Tinnevely:

Forwarding for the consideration and orders of Government the accompanying letter from
Mr. Finnie,

Mr. Finnie, cotton planter, proposing, for reasons shown, that he be allowed to extend his supervision to Coimbatore.

[Here enter 24 April 1849, No. 79.]

THE Right honourable the Governor in Council is not disposed to accede to the application of Mr. Finnie to be permitted to extend his supervision to Coimbatore, and thinks that, pending certain measures in contemplation respecting the Government experiments generally, which will be communicated in due course, Mr. Finnie should confine his operations as heretofore, to the districts of Madura and Tinnevelly.

(signed) **H. C. Montgomery,**
Secretary to Government.

To the Chief Secretary, Fort St. George.

Sir,

As the subject of this letter is one with which my immediate superior has nothing to do, I hope I may be pardoned for addressing you direct.

2. While I was in Madras the merchants suggested to me the propriety of placing myself in communication with the Chamber of Commerce, and send to that body from time to time such statements as I deemed of general interest, assuring me at the same time that they are deeply interested in the enterprise in which I am engaged, but regretted much that they knew so little of what had been done, or of the plans pursued for the accomplishment of the great object in view.

3. As the business is considered to be of public interest, and as the merchants are so immediately interested, and indeed whose co-operation is so important to its success, I have the honour to solicit permission to communicate with the Chamber of Commerce at Madras.

4. I make this application on public grounds. Finding that my coadjutor at Coimbatore industriously circulates statements* disparaging my efforts and misrepresenting my views, which are only known to Government, I beg that the Right honourable the Governor in Council will be pleased to allow me to place myself in communication with a body of accomplished business men, than whom none are more capable of deciding upon the plans we pursue for the attainment of results which all so heartily desire.

(signed) **Thomas James Finnie,**
Cotton Planter.

Sevacausey, 1 May 1849.

THE Governor in Council observes that, under the authority of the Court of Directors, Mr. Finnie was permitted to act as a general agent for the supply of cotton, and if in this capacity he has occasion to correspond with the Chamber of Commerce he is quite at liberty to do so; but the Governor in Council thinks that communications of any other kind, while he is in the Government service, should be only made through the channel of the Collector of Tinnevelly, as laid down by the orders of Government of the 27th July last, and by that officer submitted, if necessary, to Government.

(signed) **H. C. Montgomery,**
Secretary to Government.

Fort St. George,

22 May 1849.

(No. 162.)

From **C. J. Bird, Esq.,** Acting Collector, to Sir **H. C. Montgomery, Bart.,**
Secretary to Government, Fort St. George.

Sir,

GOVERNMENT having been pleased to grant† to Mr. Finnie, cotton planter, leave of absence for one month preparatory to quitting the country, which he proposes‡ to do by the steamer to sail from Madras about the 13th of October next, I have the honour, with reference to Mr. Finnie's opinion§ of the incapacity of his Assistant, Mr. Fugle, and of the East Indian lads, to request that either Mr. Sherman or Mr. Cuxton, from Coimbatore, may be ordered to proceed to Sevacausey, as determined in para. 8 of Minutes of Consultation of 1st June last, to receive charge from Mr. Finnie of the cotton gins and other Government property connected with the cotton experiment, before his departure from hence about the 13th proximo.

(signed) **C. J. Bird,**
Acting Collector.

Tinnevelly, 23 August 1849.

* Circular, dated Coimbatore, 20th March 1849. See page 221 of this Return.

† Minutes of Consultation, 17th instant.

‡ Letter, dated 2d instant.

§ Letter, dated 17th July 1849, paras. 4, 5, and 6, enclosed.

EXTRACT from a Letter from *T. J. Finnie*, Esq., Cotton Planter, to *F. B. Elton*, Esq.,
Acting Collector of Tinnevely, dated 17 July 1849.

Para. 4. I THINK that even if anything could be effected with the gins under any circumstances, the effort would fail in such hands as those of Mr. Fugle and the "East India lads," and do what Government may or can, it will ultimately be found that the effort will prove the inutility of "forcing a factitious" machine on a people whose condition is unsuited to its use.

6. As to the ability of the "East India lads," I know nothing, but they are not the sort of people to influence the natives of India, who are swayed so much by caste or position. I have done all I could to induce the people to use the gins. I offered them the use of the machines for a very trifle, and then for nothing, and they entirely refuse to have anything to do with them; and, as I have said, the gins will always remain idle after Government cease to use them, and the gin-house at Sevacausey, and the Ceylon machinery, which I have erected, and which works beautifully, will remain a cenotaph to the judgment of those who urged its purchase, after I had ascertained that it was not required. The new 60 saw-gins, I may remark, do not work well.

(True extract.)

(signed)

C. J. Bird,
Acting Collector.

(No. 838.)—Revenue Department.

EXTRACT from the Minutes of Consultation, under date 3 September 1849.

Read the following letter from the Acting Collector of Tinnevely.

[Here enter 23 August 1849, No. 162.]

1. Resolved, That the Acting Principal Collector of Coimbatore be requested to direct Mr. Cuxton to proceed without delay to Sevacausey and take charge of the gins and other Government property attached to the cotton experiment in the Tinnevely district, and to report to the Acting Collector of Tinnevely the probable date of his arrival in the limits of that district.

2. Under the opinion expressed by Mr. Finnie, the Government purpose issuing orders respecting Mr. Fugle at a future period, but desire in the meantime that Mr. Bird will be careful not to leave him in uncontrolled charge.

(signed) *H. C. Montgomery*,

Secretary to Government.

(No. 165.)

From *C. J. Bird*, Esq., Acting Collector, to *Sir H. C. Montgomery*, Bart., Secretary to Government, Fort St. George.

Sir,

I HAVE the honour to submit, for the consideration and orders of Government, copy of a letter received from Mr. Finnie, cotton planter, suggesting the propriety of returning the public cattle, &c., sent here from Hoonsoor, in conformity with the orders contained in the extract from the Minutes of Consultation, under date the 27th February last.

2. So far as I can form a judgment in the short time since I joined my present appointment, I concur with Mr. Finnie in thinking there is no further occasion for retaining the Government cattle at Sevacausey or Aroopocottah.

(signed) *C. J. Bird*,

Tinnevely, 24 August 1849. Acting Collector.

(No. 8.)

From *T. J. Finnie*, Esq., Cotton Planter, to *C. J. Bird*, Esq., Acting Collector, Tinnevely.

Sir,

I HAVE the honour to inform you that the seed cotton that was purchased on account of Government has all been ginned, and that part of the work closed yesterday. I request you will give me instructions regarding the bullocks which were sent here as the motive power for the gins. The bullocks, duffadar, and drivers are all idle now; and if it is expected that the cotton traders will adopt the gins, and that they will require the cattle to give them motion, such expectation is doomed to inevitable disappointment; for even if the people use the gins, which they will not, they can put them in motion at a cheaper rate by furnishing their own cattle and drivers; and I respectfully suggest the propriety of returning the cattle to the Military Department; they have nothing to do here, and the expense amounts to the sum of 135 to 140 rupees per mensem, if they are fed sufficiently to keep them

them in condition. I have had the cattle well taken care of, and they are now in much better plight than when they came here. I may take this opportunity to mention that the duffadar and drivers have behaved remarkably well, and have worked cheerfully and regularly in obedience to my orders.

Sevacausey, 22 August 1849.

(signed) *T. J. Finnie,*
Cotton Planter.

(No. 839.)—Revenue Department.

EXTRACT from the Minutes of Consultation, under date 3 September 1849.

Read the following letter from the Acting Collector of Tinnevely, forwarding for orders copy of a letter received from Mr. Finnie, suggesting the propriety of returning the public cattle, &c. sent here from Hoonsoor.

[Here enter 24 August 1849, No. 165.]

Para. 1. THE Right Honourable the Governor in Council resolves to direct that the public cattle attached to the experimental cotton cultivation in the Tinnevely district be returned without further delay to the commissariat dépôt at Hoonsoor, from whence it would appear they were taken

2. The Acting Collector of Tinnevely will require Mr. Finnie to furnish a report on the result of the experiment he was ordered by the resolutions of the 27th February last to try, even on the little experience he has had of it.

(signed) *H. C. Montgomery,*
Secretary to Government.

(No. 366.)—Revenue Department.

EXTRACT from the Proceedings of the Board of Revenue, dated 16 August 1849.

Read the following:

(No. 144.)

From *F. B. Elton*, Esq., Acting Collector, to *T. Pycroft*, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

Para. 1. I HAVE the honour to forward for submission to Government, for their information, a letter received from Mr. Finnie, cotton planter attached to this district, acknowledging the receipt of a communication from me, forwarding him copy of the Minutes of Consultation, under date the 1st ultimo, and calling his attention to the wishes of Government therein expressed, and furnishing him with instructions for carrying them out.

Dated 17 July
1849.

2. Having been removed to another department, it seems needless for me to offer my opinion on the future prospects of the operations directed to be carried on under the supervision of the Collector of this district; but I may mention, that in the early part of the year I had a proclamation framed in Tamil, and read out at the jummahbundy of the several talooks, containing in a concise form, and familiar language, the valuable practical information contained in Dr. Royle's memo. on the culture of cotton in India, pointing out the great importance of having the staple well cleaned, and kept unadulterated with inferior sorts, and showing the people that the price of cotton in America was such, that they might with every prospect of success cope with the merchants of that country.

3. I observe, by a report on the trade of this province just sent up to the Reporter of External Commerce, that the liberal encouragement afforded by the Government of India in taking off the export duty on cotton, seems to have been attended with success in the improvement of the trade, the exports to China and London being during the past year considerably in excess of the preceding one, as shown below:—

	Exports 1847-48.	Exports 1848-49.	INCREASE.
	<i>Co.'s Rs.</i>	<i>Co.'s Rs.</i>	<i>Co.'s Rs.</i>
China	6,92,862	10,41,945	3,49,083
London	1,34,647	3,43,534	2,08,887

4. As regards the culture of the plant, I would strongly recommend a fair trial of Captain Lawford's plan of irrigating it. A comparison of the costs of raising cotton in this way, with that cultivated on poonjah (dry) lands, can alone satisfactorily show whether the

II.
Madras.

the increased produce would be sufficient to cover the additional cost of production, but that this increase would take place to a large extent I have the most sanguine anticipations.

(signed) F. B. Elton,
Tinnevely, Courtallum, 28 July 1849. Acting Collector.

From T. J. Finnie, Esq., Cotton Planter, to F. B. Elton, Esq., Acting Collector, Tinnevely.

Sir,

I HAVE the honour to acknowledge the receipt of your letter, No. 840, dated the 6th inst., and its enclosures, which only reached me on the 11th instant.

2. I will cordially and cheerfully co-operate with you in the plans proposed by Government.

3. I have but very little land under cultivation on Government account, and there is no difficulty in relinquishing that at once. I shall dispense with such of my establishment as are not required to aid in the ginning the cotton on hand at Aroopocotta and Sevacausey, which will require 15 or 20 days, and as long as the gins are going, I shall take pleasure in affording the East India lads (one of whom has arrived) all the instruction I can; but when the machines are not at work, I see not how I can instruct them in their use; and certain it is, that after Government cease to purchase seed cotton and use the gins, they will ever be idle, for the natives will never use the machines. Indeed, as long as the merchants purchase dirty cotton we may despair of all improvement, even with the means already in the hands of the people, for the hope that I last year entertained that they would take more care in cleaning and packing now proves abortive, for they realised in the better part of the season as much for the dirty cotton as I gave them for the best article in the early part of the season. All improvement rests with the merchants and manufacturers; but then the question arises, Is it better for them to pay the people the exorbitant price they ask for extra care, or take the article as it is, and clean it in the manufactory? I shall not pretend to answer this question.

4. I think that even if anything could be effected with the gins under any circumstances, the effort would fail in such hands as those of Mr. Fugle and the "East India lads," and do what Government may or can, it will ultimately be found that the effort will prove the inutility of "forcing a factitious" machine on a people, whose condition is unsuited to its use.

6. As to the ability of the "East India lads," I know nothing, but they are not the sort of people to influence the natives of India, who are swayed so much by caste or position. I have done all I could to induce the people to use the gins; I offered them the use of the machines for a very trifle, and then for nothing, and they entirely refuse to have anything to do with them; and, as I have said, the gins will always remain idle after Government cease to use them, and the gin-house at Sevacausey, and the Ceylon machinery which I have erected, and which works beautifully, will remain a cenotaph to the judgment of those who urged its purchase, after I had ascertained that it was not required. The new 60 saw-gins, I may remark, do not work well.

7. You ask me if the "bullocks will be required any longer?" They will be required whenever the machinery is used, but if you rely on the people to use it, you may just as well send the bullocks back to Hoonsoor, pension poor Mr. Fugle, send the "East India lads" to some workshop, and employ Mr. Shearman and Mr. Cuxton elsewhere, for the gins, I repeat, are unsuited to the people; and they will not use them.

8. I have ceased purchasing cotton, and as soon as that on hand is ginned, I shall send it to Tutacorin, to be pressed for shipment.

9. The measures proposed by Government, as far as I am personally concerned, meet my cordial approbation; I have long seen the futility of the cotton experiment in this part of the country, and I have not withheld from my employers my views on the subject, and though it was of some importance to me to remain here for one or two years, the love of eternal truth and eternal justice would not permit me to do so without representing to my honourable masters the poor prospect there was of any great benefit arising from my operations as a Government servant. I laboured assiduously to ascertain the true state of the cotton culture and trade, and applied my best efforts to ascertain the best means of improving the one and extending the other. I have not indulged in the metaphysical subtleties of philosophy, but I have endeavoured to bring the sober results of experimental deduction to bear on the subject, and after a careful comparison of the climate (without regard to heat or cold, to humidity or drought, exclusively,) with other countries, I asserted that my fears that this country could not produce the American cotton predominated above my hope that it might, and after a careful analysis of the relative condition of this country and America, where the benefits of the gin are inestimable and indispensable, I said that the machine was not applicable to this country, that it was unsuited to the genius of the people, and I have no cause to change the opinion I expressed in either case.

10. I have not confined myself to the track pointed out by pseudo-scientific theory, but have launched boldly into the broad ocean of practical utility, guided by the north star of common sense, which, with some knowledge of political economy, with due regard to cause and effect, enables me to draw approximate conclusions as to the results of certain plain measures in reference to national internal improvement and individual prosperity.

11. If

11. If I had concealed from Government, the clear perceptions I had, after laborious investigation, obtained of the business entrusted to me, I should consider that I was chargeable with censure for a graver fault than a mere paralogism; or if I had laid down narrow premises, and had drawn unsound conclusions, that could be upset, I should consider that I had laboured to little purpose. But I trust I have been of some service, in eliciting and establishing the truth on the broadest basis.

12. My only regret is that I have done so little; that I have accomplished nothing for the benefit of this country and its ryots; but I have done my best, and I can now return to my native land with the proud satisfaction of having discharged my duty to my employers.

(signed) T. J. Finnie,
Cotton Planter.

Sevacausey, 17 July 1849.

Resolved, that the foregoing letter, with its enclosure, be submitted to the Right Honourable the Governor in Council, with reference to extract from Minutes of Consultation, dated 1st June last.

(A true extract.)

(signed) T. Pycroft, Secretary.

MINUTE.

It is needless to enter into any lengthened examination of, or detailed reply to Mr. Finnie's letter. He may be informed that Government fully appreciate his exertions during the period he has been in the public service, and by no means blame him for the non-success of the measures that have been adopted to induce the ryots to improve the methods of picking, cleaning and preparing the cotton wool for shipment. It may be taken to be certain, that so long as they can get an equal price (or even nearly so) for well or ill-cleaned cotton, they will not go to the trouble and cost of altering their old system.

The public cattle have been ordered to be sent back to Hoonsoor, and Mr. Cuxton will by this time have arrived in Tinnevely, and taken charge of the machinery. A period of some months, say to the close of the approaching cotton season, to see whether the people will avail themselves of the use of the machinery or not; and at the expiration of that period, such orders as may be applicable will be given.

I know nothing of Mr. Fugle's claims, or how long he has been employed. It is clearly proper he should be either discharged or pensioned, and the Acting Collector of Tinnevely should be called on to report respecting him.

With regard to Mr. Elton's recommendation, that irrigation should be tried, I have only to observe, that that solely rests on the ryots. Government will make no further trials of any kind, as past ones have, in my opinion, done no good whatever, and have been attended with a heavy expense into the bargain. The object of them was, as I conceive, to show the people how they were to raise foreign cotton, and improve the indigenous; but latterly the whole transaction has been a mere forced, fictitious speculation, which could not instruct the people, because they had no such command of money or means as they saw brought into operation.

(signed) Henry Pottinger.
31 August 1849.

(No. 867).—Revenue Department.

EXTRACT from the Minutes of Consultation, under date 12 September 1849.

Read the following Papers:—

Extract from the Proceedings of the Board of Revenue.

[Here enter 16th August 1849, No. 366.]

Minute by the Right Honourable the President.

[Here enter 31st August 1849.]

Para. 1. REFERRING to the concluding paragraph of Mr. Finnie's letter of the 17th July 1849, which accompanied the communication of the Acting Collector of Tinnevely, dated the 28th of the same month, the Right Honourable the Governor in Council resolves to direct that Mr. Finnie may be informed that Government fully appreciate his exertions during the period he has been in the public service, and by no means blame him for the non-success of the measures that have been adopted to induce the ryots to improve the methods of picking, cleaning and preparing the cotton wool for shipment. It is certain that so long as they can get an equal price (or even nearly so) for well or ill cleaned cotton, they will not be at the trouble and cost of altering their old system.

2. As the public cattle have been ordered to be returned to Hoonsoor, and Mr. Cuxton will by this time have arrived in Tinnevely, and taken charge of the machinery, the Governor in Council will hope to be informed, after the close of the approaching cotton season, whether the people have availed themselves of the use of the machinery or not, when such further orders as may be necessary will be given.

II.
Madras.

3. The Governor in Council has no information of the nature of Mr. Fagle's services or claims on the Government, but is of opinion that, under the representation given of him by Mr. Finnie, he should be either discharged or otherwise provided for; he desires, therefore, that the Acting Collector of Tinnevely be called on to report respecting him.

4. With regard to Mr. Elton's recommendation, that irrigation should be tried, the Governor in Council observes, that that matter rests solely with the ryots. Government have already made trials at a heavy expense, with the view of showing the people how they were to raise foreign cotton, and improve the indigenous; but the results have been unsatisfactory, and the whole transaction latterly has been a mere forced, fictitious speculation, which could not instruct the people, because they had no such command of money or means as they saw brought into operation.

(signed) *H. C. Montgomery,*
Secretary to Government.

EXTRACT Revenue Letter from Fort St. George; dated 12 August (No. 43) 1850.

8. WE take this opportunity of forwarding a correspondence* having reference to the cultivation of foreign cotton in the Coimbatore district, which was originally undertaken and persevered in by Mr. Wroughton, the Principal Collector, and afterwards, on his recommendation, when quitting the Presidency for the Cape of Good Hope, continued, under our orders of the 16th May 1849, under the superintendence of the present Acting Principal Collector. The result of the experiment, for the four seasons on which it has been in operation, has been reported by Mr. Thomas, and reviewed by us, in our proceedings of the 11th July 1850. That officer has, for stated reasons, recommended that the experiment should be prosecuted for a still longer period; and as your Honourable Court have been pleased to direct the continuance of the cotton farms under Dr. Wight's superintendence, we saw no objection to the Collectorate farm being also continued until further orders, although of opinion that no real practical good, on a great scale, was likely to spring from either undertaking.

9. The charges incurred on this account, for the four years, it will be observed, amounted to Rs. 1,247. 5. 6., of which Rs. 320. 6. 8. having been sanctioned on the 20th September 1845, the remainder, Rs. 926. 14. 10., has now been passed by us.

EXTRACT Fort St. George Revenue Diary to Consultation of 22 May 1849.

Received the following Papers:

MEMORANDUM.

No. 1.

A FEW days before the departure for the Cape of Good Hope of Mr. Wroughton, the Principal Collector of Coimbatore, that gentleman brought to me, at my office, copies of his correspondence on the subject of cotton cultivation, specimens of the cotton he had grown last season, and the accompanying Statement of the expense actually incurred by him in the cultivation, as an experiment, of 40 bullahs, or about 60 acres of land, of American cotton, together with the results partly estimated. Mr. Wroughton explained to me that his object was to show that American cotton could be most successfully and profitably cultivated in Coimbatore under the system he had followed; and by his statement this is plainly shown, for the expenses, including the Government demand for the land, are given at Rs. 595. 4. 7., the clear profit to the cultivator, after paying these at Rs. 2,364. 11. 5., or about 40 rupees per acre.

Mr. Wroughton is very desirous that the experiment he has commenced with so much success should be continued; and he requested me to place the statement before the Governor in Council, and to solicit the support of Government. He proposes that the person, an intelligent duffadar of the Principal Collector's establishment, who, under his orders, has managed this experimental cultivation, should be permitted to continue the experiment, under the orders of the Acting Principal Collector, the duffadar receiving his usual salary, and half of the profits as an encouragement. A note to this effect, from Mr. Wroughton, to my address, is herewith submitted. Mr. E. B. Thomas, the Acting Principal Collector of Coimbatore, has expressed himself willing and desirous of carrying on Mr. Wroughton's plans; and the interest he has always evinced while Collector of Tinnevely, in the improvement of cotton cultivation, and his acquaintance with the subject, render him peculiarly fitted to do so. Should the Governor in Council be inclined to receive with favour

* Dated 22d May 1849, Nos. 1 to 4; 12th February 1850, Nos. 35 and 36; and 16th July 1850, Nos. 9 to 11.

Dated Madras,
Friday.

favour Mr. Wroughton's proposition, the papers now submitted might be forwarded to Mr. Thomas, and authority given to him to advance from the public treasury, at his discretion, such moderate sums for the prosecution of this experiment (on a scale not larger than Mr. Wroughton's statement shows his to have been) as may appear requisite. In this event, Mr. Thomas should be instructed to keep a careful record of his proceedings, and a separate account, charging expenditure and profit to the head of the experimental cotton farms, and at the termination of the season he should submit a report of the result with detailed accounts, for the information of Government and the Honourable the Court of Directors.

Madras, Government Office, } (signed) *H. C. Montgomery,*
10 April 1849. } Secretary to Government.

ACCOUNT CURRENT of the Expenses in the Experimental Farm of *J. C. Wroughton, Esq.*

Dr.

	<i>Rs. a. p.</i>
To Government demand on 20 bullahs, or 57½ cawnies of land	45 11 1
„ charges of ploughing	42 4 7
„ „ of weeding	120 11 10
„ „ of picking	21 5 8
„ „ of conveyance to Coimbatore for 12 carts	13 - -
„ „ of separating unclean cotton	25 3 10
„ seventy gunny pieces for bags	31 6 -
„ hire of sowing the same	2 11 4
„ ditto for repairing old bags	4 - -
„ ropes for sowing	7 11 -
„ hire for bagging	2 8 -
„ twelve ropes for baling	6 7 -
„ ceremonies performed in the field	- 4 -
„ hire for conveying seed cotton	2 8 7
„ for cleaning the same	10 7 1
„ purchase of coulter	4 13 -
„ repairs of godown	5 9 2
„ twelve panes of glass for windows to the cotton godown, including hire	4 8 1
„ cocoa-nut leaves for thatching	1 14 -
„ bamboo mats	2 3 6
„ servants' wages	14 - -
„ advanced to the duffadar for payment to coolies	38 8 6
	395 4 7
„ prospective expenses	200 - -
	595 4 7
„ clear profit to the cultivator	2,364 11 5
	<i>Co.'s Rs.</i> 2,960 - -

Cr.

	<i>Rs. a. p.</i>
By value of cotton now received, 8½ candies of first sort cotton, at 80 rupees per candy, cleaned	680 - -
„ ditto, second sort, at 30 rupees a candy, cleaned	90 - -
„ ditto, of 400 maunds of seed	50 - -
„ ditto, of 21½ candies of first sort cotton, to be yet received, at 80 rupees a candy, cleaned	1,720 - -
„ ditto, second sort, at 30 rupees for 9 candies, ditto	270 - -
„ ditto, of cotton seed	150 - -
	<i>Co.'s Rs.</i> 2,960 - -

MEMORANDUM.

On the 12th of March 1848 the ploughing commenced, and continued to the 16th; again from 22d to the 31st. From the 9th April to the 14th, and from 24th to 30th April. From the 12th of May to the 18th; again from the 20th to the 31st. From June 10th to the 17th; again from 24th to 30th; again from July 9th to the 16th, and from

II.
Madras.

25th to the 28th, when the seeds were sown. Weeding from 1st to 20th September 1848.

Clearing plants from 1st October to the 31st. Weeding again 1st November; again clearing plants. Rains on the 2d and 20th August; slight 7th September. Heavy rain October 22d, and 27th slight shower. November 9th heavy rain; and 19th, slight shower.

My dear Sir Henry,

Madras, Friday.

HERE is the duffadar about whom I spoke yesterday. If you can induce Government to think that he can be trusted to act alone, I have no doubt that he will do more to encourage the growth of the American cotton in one season (should it prove an average one), than Dr. Wight has succeeded in doing up to this time. It will cost Government little more than his pay as duffadar, and he might share in the profits. This man has been with me from the commencement of my several experiments, and knows as much as I do about the whole process.

(signed) J. C. Wroughton.

P. S.—His name is Sooboo Singh.

MEMORANDUM by the Right Hon. the President.

No. 2.

I CANNOT say that Mr. Wroughton's correspondence and communications on the subject of cotton cultivation appear to me by any means to be satisfactory; at least, not near so much so as I was led to anticipate, from what that gentleman told me.

I see that in 1845 he spoke of "one more year" being required to perfect his experiments, and demonstrate his assertions; yet in the statement now forwarded (to uphold the application for his duffadar receiving advances), three-fourths at least of the profits are assumed on a prospective estimate, which is just as likely, in my opinion, to prove erroneous as otherwise.

I understood from Mr. Wroughton that his great object and study had been to conduct the whole process of cultivation from the instant the land was procured from the tahseeldar up to the final gathering of the crop, precisely as a common ryot of the middling class would have done, and a minute record of such an experiment could not have failed to be both interesting and useful; but I cannot think that the statement which is with these papers can be taken in that light: it shows a command of money which, I am afraid, not many (if any) cultivators of that class can pretend to, and therefore as a practical memorandum I doubt its value.

The best conclusion that can be drawn from these papers seems to me to be, that American cotton of a superior quality will grow in Coimbatore, and that it may produce very fine crops as to quantity, if favoured by seasons; but beyond these gratifying facts, I am unwillingly obliged to acknowledge that I do not think that much else has yet been established by Mr. Wroughton's experiments, or even by the more extended operations of Dr. Wight.

I have thought it right to offer these observations in passing. Sir Henry Montgomery's memorandum, to explain the impressions I have imbibed, and I now willingly accede to his suggestion that the Officiating Principal Collector of Coimbatore shall be authorised to advance such moderate sums as he shall see fit to the duffadar to continue the experiment for another year, but on the distinct understanding that a most complete and minute detail shall be kept and hereafter furnished of the whole proceeding, showing the actual profit or loss, as well as all other particulars as to sowing, gathering the crop, ginning, preparing the bales, and transmitting them (if not sold on the spot) to the port of exportation. On the receipt of the above details the Officiating Principal Collector will receive authority to close the account, and enter the disbursements and receipts on his books.

14 April 1849.

(signed) Henry Pottinger.

MEMORANDUM by the Honourable Mr. Dickinson.

No. 3.

MR. WROUGHTON'S experiments in the growth of New Orleans cotton have already extended through seven years.

The result of them shows that such cotton may be grown in the district of Coimbatore; but it seems to be very doubtful whether, including the tax on the land, and all other incidental charges, it can ever realise a price which will make it worth while for farmers to produce it.

The experiments which have been conducted by Mr. Wroughton and Dr. Wight are well known to the commercial world. If it were thought that American cotton grown in Coimbatore would yield a fair profit in the home market, it cannot be doubted that capital would

be embarked in the extensive cultivation of it. The fact that no European capitalists have hitherto come forward to prosecute the cultivation of cotton in Coimbatore, appears to me to be conclusive that such cotton would not yield a fair profit in the home market.

Mr. Wroughton, throughout his correspondence presses, on the consideration of Government the fact that the ryots are only disposed to engage in the cultivation of New Orleans cotton on their being assured of obtaining a remunerative price for their produce.

It is not possible that the Government should offer such a guarantee.

If the ryots do not find in the experiments that have been made that it would be to their interest to cultivate this cotton, it would be to no purpose that the Government should endeavour to force its cultivation into the district.

It appears to me that all that was needed has already been done in the way of experiment, and that no further outlay should be sanctioned on this account.

16 April 1849.

(signed) H. Dickinson.

Para. 1. THE Right honourable the Governor in Council resolves to transmit the papers referred to in the memorandum* from the Secretary to Government in the Revenue Department to the Acting Principal Collector of Coimbatore, and to authorise that officer to advance from the public treasury to Duffadar Sooboo Singh such moderate sums as may be required for the continuance, during another year, of the experimental cultivation managed by that person under the orders of Mr. Wroughton. The Acting Collector will conduct the experiment with full regard to economy, keeping a complete and minute detail of the whole proceeding, showing the actual profit or loss, as well as all other particulars as to sowing, gathering the crops, ginning, preparing the bales, and transmitting them (if not sold on the spot) to the port of exportation. On receipt of the above details, which will be forwarded direct to Government as soon after the close of the season as possible, the Acting Collector will receive authority to close the accounts, and enter the receipts and disbursements on his books.

No. 4.

2. The Acting Collector will inform the duffadar that, in addition to his salary, he will be permitted to receive a portion of the profits, if any, to be decided hereafter by Government, as a reward for his industry.

3. Under date the 20th September 1845, the Principal Collector of Coimbatore was authorised to continue the experimental culture of cotton for a further period of one year; but it does not appear that any special report has been received, or that the results of subsequent experiments, if since continued, as would appear to be the case, have been submitted. The Governor in Council desires to receive at an early date any information on this subject which it may be in the power of the present Acting Collector to afford.

Dated 23d September 1845, Nos. 11, 12.

Fort St. George,

16 May 1849.

(signed)

H. C. Montgomery,

Secy. to Govt.

EXTRACT Fort St. George Revenue Diary to Cons. of 12 February 1850.

Received the following letter :

(No. 2):

From E. B. Thomas, Esq., Acting Principal Collector of Coimbatore, to the Secretary to Government, Public Department, Fort St. George.

Sir, In forwarding an extract from the audit of the accounts of Fusly 1255 (1845-46), I have the honour to enclose an account particular of charges incurred for the experimental cotton cultivation under the Collector, amounting to Rs. 352. 15. 6., for which I request the special sanction of Government may be granted to enable the civil auditor to admit the accounts.

No. 35.

Coimbatore,
10 January 1850.

(signed) E. B. Thomas,
Acting Pl. Collector.

* From Collector of Coimbatore, 10th December 1842; 19th February 1844; 18th November 1844; 25th July 1845; 4th December 1845; 9th June 1846; 4th August 1847.

† See Minutes of Consultation, 28th September 1845, No. 1097.

NO.	CHARGES OBJECTED TO.	REMARKS OF THE CIVIL AUDITOR.
33	Paid for preparing gunny bags, &c. for packing the cotton - - - - -	No. 33 to No. 36. These charges require the special sanction of Government; the Acting Principal Collector should therefore adopt early measures to obtain the same.
34	Paid batta to two peons who accompanied cotton bales to the collector of sea customs, from 25 November 1845 to 4 February 1846, at 1 anna each per diem - - - - -	
35	Paid for charges incurred in cultivating experimental American cotton at Ootacalmundapum - - - - -	
	Admitted, as per sanction of Government, dated 20 September 1845 - - - - -	
	Difference - - - - -	
36	Paid for hire of carts, &c. for conveying the American cotton from Coimbatore to the collector of sea customs at Madras - - - - -	
	C.R.s. a. p. 32 3 - 9 - - C.R.s. a. p. 388 3 2 320 6 8 67 12 6 244 - - C.R.s. 352 15 6	

(signed) *E. B. Thomas,*
Acting Principal Collector.

	C.Rs. a. p.	C.Rs. a. p.
Hire of 209 men, for gathering cotton, at 6 pice each	6 8 6	
" 28 ditto - - ditto - - at 8 pice each	1 2 8	
" 498 ditto - - ditto - - at 1 anna each	31 2 -	
" 28 ditto - - ditto - - at 1 anna and 4 pice each	2 5 4	
		41 2 6
Four carts employed in conveying the cotton from the village to Coimbatore, at 8 annas each	2 - -	
Sixteen bullocks employed in conveying the cotton from the village to Coimbatore, at 2 annas each	2 - -	
	4 - -	
Twenty-seven carts employed in conveying the cotton from talook cutchery to the gin-house and huzoor cutchery, at 1 anna 4 pice each	2 4 -	
		6 4 -
Five pieces of gunny, for bags for securing cotton, at 1 rupee 2 annas each	5 10 -	
Twenty-seven pieces of gunny, for bags for securing cotton, at 1 rupee 4 annas each	33 12 -	
One piece of gunny, for bags for securing cotton	1 12 -	
	41 2 -	
Value of twine purchased for sewing bags	13 -	
Hire for sewing bags	10 8	
		42 9 8
Value of ropes purchased for packing up the cotton bales:		
Ten ropes, at 6 annas each	3 12 -	
Seven ropes, at 8 annas each	3 8 -	
		7 4 -
Pay of a cooly employed in watching the field, from February to June 1846, at 1 rupee 12 annas per month	5 8 12 -	

	C.Rs. a. p.	C.Rs. a. p.
Hire of eight carts, employed in conveying cotton from Coimbatore to Madras, at 19 rupees 8 annas each	156 - -	
Hire of four carts, employed in conveying cotton from Coimbatore to Madras, at 22 rupees each	88 - -	244 - -
Nine bamboo mats, at 8 per rupee	2 -	
Seven - ditto - at 2 annas 5½ pice each	1 1 -	2 3 -
Paid batta to two peons who accompanied cotton bales to the collector of sea customs, from 25 November 1845 to 4 February 1846, at 1 anna each per diem	- - -	9 - -
		361 3 2
Deduct amount paid in Fusly 1256	- - -	8 3 8
		C.Rs.
NET AMOUNT disbursed in Fusly 1255	- - -	352 15 6

Company's Rupees, Three hundred and Fifty-two, annas, Fifteen, and pies, Six.

Coimbatore, }
11 July 1856. }

(signed) E. B. Thomas,
Acting Principal Collector.

THE Government having already, in the extract Minutes of Consultation, dated 28th September 1845, No. 1097, sanctioned the charges incurred by the Principal Collector of Coimbatore in the cultivation of New Orleans cotton, amounting to Rs. 320. 6. 8., the Right honourable the Governor in Council cannot understand how the further expenditure of fusly 1255, now reported, has occurred, and requests the Acting Principal Collector will offer any explanation on the subject that he may have in his power. If charges of this description have been of annual occurrence, it will be desirable to have a statement showing the amount expended in each fusly, and the authority under which the disbursement has been made. It is not satisfactory to the Government that accounts such as the present should remain so long unadjusted.

No. 36.

(signed) T. Pycroft,
Secretary to Government.

Fort St. George, 11 February 1850.

EXTRACT Fort St. George Revenue Diary to Cons. of 16 July 1850.

14 June.—Received the following letter:

(No. 16.)

From E. B. Thomas, Esq., Acting Principal Collector of Coimbatore, to Sir H. C. Montgomery, Bart., Chief Secretary to Government, Fort St. George.

Sir,

1. UNDER the orders of Government, dated 16th May 1849, No. 482, I was directed to continue the collectorate cotton farm for one year longer: it has been impracticable to close it earlier, from the crop being partially still on the ground.

No. 9.

2. I would now respectfully suggest, that, if Government see fit, it may be continued with public benefit for a still longer period, on the following grounds* mainly, viz., that it is a desirable depôt for supplying good seed gratis to the ryots, whenever they are inclined to take up the cultivation more generally; that the farm, lying in the midst of other native cultivation, is useful as a model experiment, to enable the native cultivators to judge of the practicability and profit of such cultivation; and, lastly, that it is carried on at a very slight cost to Government, and indeed much more than pays itself under its present system, the only superintendence being an intelligent duffadar and one peon (spared from other work) under my own surveillance. Its success has been greatly due to Mr. Wroughton's constant superintendence of it, it being within an easy ride (only nine miles) from Coimbatore, a superintendence which I have been careful also to maintain, and in which I have taken much interest.

3. The

* Vide paras. 3, 4, and 5, of No. 11, 4th July 1848, of letter from the Court of Directors.

II.
Madras.

3. The collectorate farm is not on the same system as Dr. Wight's; it has no permanent establishment of labourers, bullocks, or farm implements; the work is done by contract, or by the ryots of that neighbourhood, on daily pay; the experiment is on ordinary land, without manure, or any fictitious aid, except that derived from clean and careful husbandry: the farm, about 74 acres, lies near the great western high road to the nearest seaport, Ponany, about 90 miles distant.

4. The continued and increasing interest and importance attached to the subject of Indian cotton, renders it desirable, perhaps, that every practical and useful experiment should have full and fair trial. My own experience leads me to fear the native cultivator will not readily undertake this, or any other experiment, without much and long previous encouragement and evidence of its feasibility, even though he may see the foreign or New Orleans seed grow and produce fairly.

5. The chief obstacles are, the native ryot's national apathy and dislike to enter on any new and untried method, or speculation (though this, of course, will eventually yield to obvious and certain profit), the fact of the foreign sort of cotton requiring, I think, without doubt, a somewhat better soil and moister atmosphere than the common native plant; and, lastly, but mainly, the absence of a certain and home market and demand for the produce, which does not now exist.

6. The native cultivator has neither the means nor enterprise to grow for a distant or foreign market. The shorter, but stronger fibre of the native cotton finds a ready sale to the native merchant, who considers it more suitable for the native loom and manufactures. He will not buy the produce of the foreign seed. The great stimulus and means required, therefore, is a certain and ready sale, which can only be effected by private European mercantile agency. Such an agent, located in a cotton district, ready to buy up annually the ryots' cotton at a fair rate for cash, would command a large supply of New Orleans cotton, or anything else capable to the soil and climate of the district.

7. Independent of this, advances to the ryots, personal intercourse, punctual payments, and other like encouragements,* practicable through an European agency, would greatly facilitate the object in view; and if Government thought it fit to step in and give such further aid to the effort, a very slight (and temporary) reduction (say 10 per cent.) of the usual land-tax on all land under foreign cotton would, of course, give an additional stimulus to the production; but I believe a sure and permanent market at hand would be the main and sufficient encouragement.

8. If the native cotton crop can pay the present land-tax, so could the foreign. Whether the produce would pay the carriage to the nearest port, and the freight home, at the present price in England, is a question for the merchant to decide; but that a very large supply of good New Orleans cotton might be produced in parts of this and other districts, I think there is no doubt.

9. The quantity of cotton wool produced in the collectorate farm has amounted to about 47 candies and 283 lbs.,† valued at Rs. 3,805. 4., at 80 rupees a candy.

10. The fields, situated about nine miles south-west of Coimbatore, and within partial range of that monsoon, are sown in July; they are well hoed and cleaned several times. The soil is a light reddish sandy loam. The picking begins about November, and continues from five to seven months. The produce has been usually ginned at Dr. Wight's establishment, as being a quicker process, and as using the gins experimentally, as appeared the wish of Government, though I think the fibre is there cut and injured much more than by the native churka. The bales are screwed at the gin-house, and have been hitherto shipped at Madras, from a difficulty in disposing of them at Coimbatore.

11. If the collectorate farm is to be continued, I shall give it my best attention, and early orders are desirable, as this is the time for preparing the ground for next season.

12. I have entered more in detail on the subject than I should have otherwise done, because late communications from Government and from the home authorities led me to believe that full and minute information was desired.

The comparative statement appended shows a full and favourable view of the cost, economy, and value of the experiment; and I am not aware of any items of expense, pro or con, being omitted. The farm may safely be continued as a profitable return, as well as, on account of its more legitimate and more valuable intention, an experimental one.

(signed) E. B. Thomas,
Coimbatore, 31 May 1850. Acting Principal Collector.

* Private and mercantile.

† Inclusive of four candies produced at the exhibition before the Agri-Horticultural Society at Madras.

COMPARATIVE STATEMENT, showing the Quantity of Cotton produced in the Collectorate Farm, the Value and Cost thereof, as well as the Amount of Profit.

FUSLIES.	QUANTITY of	Value, at 80 Rupees as per Letter from the Chamber of Commerce.	Charge of Cultivation	Charges of Conveyance.	LAND RENT.	CHARGES TOTAL.	NET PROFIT.	REMARKS.
		Vide Minutes of Consultation, dated 25 January 1845.						
	Cwts. lbs.	Rs. a.	Rs. a. p.	Rs. a.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
1255 - -	16 75	1,292 -	429 10 5	255 3	24 3 8	709 1 1	582 14 11	
1256 - -								No cultivation was
1257 - -	9 368	737 4	99 - 6	-	37 14 10	136 15 4	600 4 8	made in this year.
1258 - -	8 200 4 400	1,056 -	245 9 -	110 12	45 - 1	401 5 1	654 10 11	
	13 100							
1259 - -	9 0	720 -	404 9 5	-	45 - 1	449 9 6	270 6 6	
	47 283	3,805 4	1,178 13 4	365 15	152 2 8	1,636 15 -	2,108 5 -	
Add amount of price -		300 -	60 -	-	-	60 -	240 -	
Rs.		4,105 4	1,238 13 4			1,756 15	2,348 5	
Exclusive of conveyance Rs. 2,714 4								

E. E. per

(signed) F. B. Thomas,

Acting Principal Collector.

Coimbatore, 31 May 1850.

EXTRACT Fort St. George Revenue Diary to Cons. of 16 July 1850.

Received the following letter:

(No. 17.)

From E. B. Thomas, Esq., Acting Principal Collector of Coimbatore to T. Pycroft, Esq., Secretary to Government in the Revenue Department, Fort St. George.

Sir,

1. I HAVE the honour to acknowledge the receipt of extract from Minutes of Consultation, of the 11th February last, No. 153.

No. 10.

2. Pursuant to the instructions therein contained, I beg leave to submit a statement of sums disbursed on account of Mr. Wroughton's experimental cotton farm, from 1255 to 1258 inclusive, with three accounts marked (A), (B), and (C).

3. It would appear that the aggregate charges for the above period amount to Rs. 1,247. 5. 6., of which deducting Rs. 320. 6. 8., previously sanctioned, the remainder, for which the special authority of Government is now required, is Rs. 926. 14. 10.

4. The expenses exhibited in the statement forwarded with Mr. Wroughton's communication of the 25th July 1845 were only those incurred up to that date, and the disbursements alluded to in my letter of the 10th January last, also refer to the same fusly, and to the same cultivation.

5. It will be observed from para. 3, of extract from Minutes of Consultation of the 20th September 1845, No. 1097, that the continuance of the experiment was authorised for a further period of one year, and under this authority the principal Collector would seem to have carried on the cultivation in fusly 1257 also.

6. The accounts of each fusly were not closed at the termination of it; in fact, it appears that such was impracticable, the charges of the experiment of one year being paid, and debited in the accounts of two.

7. Mr. Wroughton continued the experiment for a still further period of one year, viz., 1258, also, which has received the sanction of Government as conveyed in Extract from Minutes of Consultation of the 16th May 1849, No. 482.

II.
Madras.

8. About 23 candies of wool was transmitted to the presidency for shipment to England, being the produce of fuslies 1255 and 1257 only.

9. The practice hitherto has been to wait for the audit of the accounts from the Civil Auditor, in order to ascertain what charges have been admitted by that department, and what have not, and then to submit the charges objected to for the sanction of Government; the retrenchment for 1255 were received early in July last, and this will account for the delay in the adjustment of the accounts. This, however is objectionable, and care will be taken to prevent similar delay in future.

10. The continuance of the farm has been at a comparatively small expense; it has been useful, as exhibiting to the ryots around, the successful cultivation of the foreign cotton. The farm (of about 74 acres), has produced excellent cotton, better it is believed, than any other submitted to Madras, inasmuch as it has twice gained the prize at the exhibition; it has afforded good seed to all ryots wishing for it; and the outturn this year on the fields promises to be good, both in quality and quantity. Much of the success of the experiment is to be attributed to the careful management of the duffadar "Soob Sing," and the farm being visited frequently by Mr. Wroughton and myself.

Coimbatore, 24 June 1850. (signed) *E. B. Thomas,*
Acting Principal Collector.

(A).—ACCOUNT, Particulars of Charges incurred in the Principal Collector's Experimental Cotton Farms for Fusly 1255, charged in 1256.

	<i>C.Rs. a. p.</i>	<i>C.Rs. a. p.</i>
One hundred and nine coolies employed in cleaning the field, and gathering cotton, &c., at one measure of grain, each calculated at 28 measures	3 14 3	
Fourteen coolies at 4 pies each	— 4 8	
Two hundred and twenty coolies at 6 pies each	6 14 —	
Seventy-six coolies at 9 pies each	3 9 —	
For cleaning field upon contract	5 6 —	
		19 15 11
Hire for conveying cotton from the field to Coimbatore:		
One cart	— 8 —	
Eight bullocks	— 12 —	
		1 4 —
Pay of a cooly to watch the field from 15th August to November 1846, at 1 $\frac{3}{4}$ rupees per month		6 3 4
		27 7 3
Amount paid in 1256, being the sum deducted in the account, particulars of fusly 1255		8 3 8
TOTAL	<i>Co's. Rs.</i>	35 10 11

E. E. per

Coimbatore, 24 June 1850. (signed) *E. B. Thomas,*
Acting Principal Collector.

(B).—STATEMENT of Charges incurred in the Principal Collector's Experimental Cotton Farms in Fusly 1257.

	<i>C.Rs. a. p.</i>	<i>C.Rs. a. p.</i>
Seventy-two coolies, employed in gathering cotton, &c., at 6 pice each	2 4 —	
Twelve ditto, at 8 ditto	— 8 —	
Eight hundred and ninety and a half ditto, at 1 anna each	55 10 6	
		58 6 6
Hire for conveying cotton from the field to Coimbatore:		
Twelve coolies, at 6 pice each	— 6 —	
Twenty-six bullocks, at 2 annas each	3 4 —	
Six carts, at 4 annas each	1 8 —	
		5 2 —
Charges		

Charges for screwing cotton bales :	C.Rs. a. p.	C.Rs. a. p.
Three pieces of gunnies, at 6 annas per piece - - - -	1 2 -	
Twenty-one ditto, at 5 ditto - - - - -	6 9 -	
One ditto - - - - -	- 4 -	
	7 15 -	
Seven ropes, at 11 annas each - - - C.Rs. 4 13 -		
Twine - - - - - 6 -		
Hire of eight coolies, sewing gunnies - - 1 6 -		
	6 9 -	
Pay of a coolie to watch Tamaray cotton farm, from 1 December 1846 to February 1847, at 1½ rupee per month - - - -	5 4 -	14 8 -
Pay of a coolie to watch Arsempolliem cotton farm, from 1 July 1846 to March 1847, at 1½ rupee per month - - - -	15 12 -	
		21 - -
Account of assessment on the land cultivated with cotton - - -	- - -	37 14 10
TOTAL - - - Co.'s Rs.		136 15 4

Coimbatore, 24 June 1850.

(signed) E. B. Thomas,
Acting Principal Collector.

(C.)—STATEMENT of Charges incurred in the Principal Collector's Experimental Cotton Farms in Fusly 1258.

	C.Rs. a. p.	C.Rs. a. p.
Hire for ploughing the field at Chadoocaray - - - -	40 12 -	
Four thousand eight hundred and thirty-three coolies employed in weeding, gathering cotton, &c., paid at different rates - - -	286 5 1	
Charges for screwing cotton bales, 74 rupees - - - -	43 10 1	
Twine for sewing gunnies - - - - -	1 1 3	
Hire for sewing gunny bags - - - - -	1 2 -	
Hire for screwing bales - - - - -	6 - -	
Charges for making 17 coulter - - - - -	5 10 -	
Charges for making a cask for the purpose of sending American cotton seed to Madras - - - - -	1 4 -	
Value of bamboo mats for packing cotton bales - - - - -	2 3 6	
Pay of two persons employed in watching the field, from 1 July 1848 to June 1849 - - - - -	34 - -	
Charges for erecting a shed in the cotton farm at Madookaray - - - - C.Rs. 17 9 2		
For repairing the godown at Coimbatore - - - 6 8 11		
	24 2 1	
Charges for sending muster of cotton without seed to Madras :		446 2 -
Value Oopum cotton - - - - -	1 - -	
Value of Nadumpartee or triennial cotton - - - - -	1 - -	
Value of gunnies - - - - -	2 4 -	
Value of rope - - - - -	1 12 -	
Hire for screwing - - - - -	- 12 -	
		6 12 -
Rent of 18 ⁹ / ₁₆ bullahs of land cultivated with American cotton - - -	- - -	45 - 1
Hire of five carts for conveying cotton seed from Coimbatore to Madookaray - - - - -	2 8 -	
Hire of 44 carts for conveying cotton from Madokaray to Coimbatore - - - - -	22 - -	
Hire of 31 carts for conveying cotton to gin-house - - - -	3 14 -	
	28 6 -	
Hire of five carts for conveying cotton to Madras C.Rs. 100 - -		
Hire of one cart from Salem to Madras - - - 7 - -		
Hire of one cart for conveying from Madras to Sea Custom Office - - - 3 12 -		
	110 12 -	
		139 2 -
Deduct,		637 - 1
Amount realised by the sale of useless cotton, maunds, 128 ¹⁰ / ₁₆ - -	169 11 -	
Ditto of seed, maunds, 505 ¹ / ₂ - - - - -	66 - -	
		235 11 -
Net Amount requiring sanction - - - Co.'s Rs.		401 5 1

E. E. per

Coimbatore, 24 June 1850.

(signed) E. B. Thomas,
Acting Principal Collector.

STATEMENT of Sums Expended for the Experimental Cotton Farm of Mr. Wroughton,
Principal Collector of Coimbatore.

FUSLIES	Sanctioned on 20 Sept, 1845	Sanction applied for	Amount
	C.Rs. a. p.	C.Rs. a. p.	C.Rs. a. p.
1255	220 6 8	352 15 6	673 6 2
1256 (for Fusly 1255)		Vide particulars (A.)	35 10 1
1257		Vide particulars (B.)	136 15 4
1258		Vide particulars (C.)	401 5 1
Total			C.Rs. 1,247 5 6

Company's rupees one thousand two hundred and forty-seven, annas five, and pies six,
Coimbatore, 24 June 1850. (signed) E. B. Thomas,
Acting Principal Collector.

No. 11.

Para. 1. THE cultivation of foreign cotton was originally undertaken in 1842 in the Coimbatore districts, by Mr. Wroughton the Principal Collector, as a private experiment, and from the success attending it,* has since been persevered in with the sanction of Government, conveyed at different times. On the last occasion the Government on the recommendation of that officer, when quitting the Presidency on leave to the Cape of Good Hope, authorised in Extract Minutes of Consultation, dated 16th May 1849, the continuance of the experiment under the management of duffadar Sooboo Singh; for the further period of one year; and the Acting Principal Collector was required to make the necessary advances, and to keep and furnish at the close of the season a complete and minute detail of the whole proceeding connected with the experimental cultivation, when it was intimated that he would receive authority to close the accounts and enter the receipts and disbursements on his books. The duffadar was, in addition to his salary, to receive a portion of the profits as a reward for his industry, and the Acting Collector was desired to report on an early date upon the result of any experiments which might have been made since the order of 25th September 1845, authorising a continuance of them for one year.

† Para. 3.

2. From the statement accompanying the letter, dated 31st May, now before Government, it is observed, that with the exception of fusly-1256, when there was no cultivation, the experiment has been prosecuted in each of the fuslies 1255, 1257, 1258, and 1259. The farm is stated in the report† to comprise 74 acres, but the extent of land employed in each of these years‡ is not given. If however the land-rent is to be taken as an indication of the extent cultivated, the ratio borne by the produce to the land on which it was raised, appears to have varied greatly in different years. Thus, in fusly 1255, candies 16.75. were produced on land assessed at Rs. 24. 3. 3., while in fusly 1259 only 9 candies were obtained on land paying Rs. 45. 0. 1.

3. It would have been well if in pursuance of the instructions conveyed in the orders of the 16th May 1849, the Acting Collector had explained the system pursued in the prosecution of the experiment more in detail. In the comparative statement which accompanied the report of the 31st May 1850, the charges of cultivation are set down in the gross without any specification. With the Acting Principal Collector's subsequent letter of 24th June, detailed statements are furnished for fusly 1255, 1257, 1258, from which it appears that the cost of ginning, and the salaries of the duffadar Sooboo Sing, and the peon who superintended the farm, are not entered among the charges. It seems also from

Statement

* Cons.:—10th January 1843, Nos. 26, 27; 19th March 1844, Nos. 9, 10; 23d September 1845, Nos. 11, 12; 22d May 1849, Nos. 1 to 4.

† Note.—In fusly 1258 the quantity seems to have been 18⁹ bullahs; Statement (C.), in letter from Acting Principal Collector, 24th June 1850.

Statement (C.), enclosed in the same letter, that the charges for fusly 1258 were really Rs. 637. 0. 1., and not Rs. 401. 5. 1., as entered in the comparative abstract statement which accompanied Mr. Thomas's former letter of the 31st May, the latter sum being the net amount of expenditure for the year requiring sanction, after taking credit for the sums realised by the sale of useless cotton and cotton seed.

4. How the whole produce raised on the farm during the four fuslies under report, candies 47. 283 lbs., has been disposed of is not explained. About 23 candies, the produce of fusly 1255 and 1257, are stated to have been transmitted to the Presidency for shipment to England. It is likewise observed that eight bales of cotton sent by the Acting Collector, in December 1849, and recently shipped on the "Llewellyn" were from the collectorate farm, but it does not appear whether this was the produce of fusly 1259, either wholly or in part, or belonged to other years. The latter would however appear to have been the case, as there is no entry for "charges of conveyance" against fusly 1259, in the statement forwarded by the Acting Principal Collector.

From Principal
Collector, 24th June
1850, para. 8.

5. The calculation of the "profits" has been formed upon the value, 80 rupees per candy, put by the Chamber of Commerce upon some of the samples sent to Madras in 1844. The whole of the cotton produced during the four fuslies 1255, 1257, 1258, 1259, is valued at this uniform rate, but in the statement which accompanied the Principal Collector's letter of 25th July 1845, three sorts of cotton are mentioned: the 1st at 80 rupees, and the 2d and 3d at the average rate of 60 rupees per candy, and further, in the memorandum presented in April 1849 to the Secretary to Government by the Principal Collector, the cotton which had been, or was expected to be obtained, apparently in that fusly 1258, was set down at 42 candies; viz. 30 candies 1st sort at 80 rupees, 12 candies 2d sort, at 30 rupees; whereas the entire yield of the whole farm, for the four years under report, now seems to be only 47 candies.

6. As the Honourable the Court of Directors have been pleased to direct the continuance of the cotton farm under Dr. Wight's superintendence, the Government see no objection to the collectorate farm being also continued until further orders, although they cannot but be of opinion that no real practical good on a great scale is likely to spring from either undertaking. The Right honourable the Governor in Council, however, desires that a report on the collectorate farm containing all the particulars required by Government in Extract Minutes of Consultation, 16 May 1849, be annually furnished. He also requests that Mr. Thomas will, at an early date, supply explanation on the various points noticed in the preceding paras., and at the same time forward a detailed statement for fusly 1259, exhibiting every item of receipt and expenditure on account of the farm. He will likewise state what proportion of the profits should be assigned to the duffadar Sooboo Sing, in reward of his exertions.

7. The Governor in Council sanctions the charges incurred on account of the collectorate farm in fuslies 1255 to 1258 amounting, as shown in the statements accompanying the Acting Principal Collector's letter of the 24th June 1850, to (926. 14. 10.) rupees nine hundred and twenty-six annas fourteen and pice ten, viz.:

Fusly 1255	Rs. 123 6 2
1256	35 10 11
1257	136 15 4
1258	401 5 1
	1,247 5 6

Deduct amount sanctioned on the 20th September 1845 - 320 6 8

Rs. 926 14 10

(signed) T. Pycroft,
Fort St. George, 11 July 1850. Secretary to Government.

(No. 356.)

To J. F. Thomas, Esq., Chief Secretary to Government.

Para. 1. I AM directed by the Board of Revenue to submit for the orders of the Right honourable the Governor in Council the accompanying letter from the Acting Collector of Tanjore, dated 11th June last.

In Cons., 30th July

2. In this letter Mr. Bird states that he has been making attempts to introduce the cultivation of the New Orleans cotton into Myavaram and other parts of Tanjore, and that after the great success of Captain Lawford at the Upper Anicut, he is anxious to extend the culture of this description of cotton, that he may be enabled to judge whether or not it can be grown as a remunerative crop in Tanjore. For this purpose he suggests that he may

II.
Madras.

be allowed to grant a tract of 40 valies of padoogay land*, of an average assessment of 23 rupees per valy, which has been declared by a decree of the Civil Court to be the exclusive property of Government, to such persons as may be willing to undertake the cultivation of this variety of cotton, to be held by them free of assessment for three years, on the understanding that an account be rendered of the out-turn per acre, and all particulars connected with it. The parties will be required to state the quantity of cotton before cleaning, the quantity of cotton and seed after cleaning, the expenses of cultivation, and the profit derived, after making allowance for the Government land-tax, and satisfying all other demands. The Acting Collector has forwarded a specimen of the New Orleans cotton grown near Vellum under every disadvantage, in consequence of its having been sown out of season, and therefore having been exposed to great heat and much drought.

3. The Board of Revenue beg to recommend Mr. Bird's application to the favourable consideration of Government. Of the importance of using every means to encourage the introduction of the finer descriptions of cotton into the Madras Provinces, there can be no question; and the experiment now proposed, which will be carried out at a small sacrifice of public revenue, will tend to show how far the cultivation of such cotton can be successfully prosecuted in Tanjore. Should the Government be pleased to sanction the measure, the Board would suggest that at the expiration of each of the three years for which the land is to be granted, the Collector should furnish a full report, explanatory of the manner in which the culture of the cotton has been conducted, and of the results which have attended it. He should likewise watch the cultivation in progress, and afford the cultivators such advice and instructions as may be required.

4. It will be seen from the accompanying reply from the Collector† to a reference made to him by the Board upon the point that Captain Lawford will supply some New Orleans cotton seed for the purposes of the experiment, and any further quantity that may be required may, it is believed, be obtained from Dr. Wight at Coimbatore.

Revenue Board Office, Fort St. George,
9 August 1849.

(signed) T. Pycroft,
Secretary.

(To T. Pycroft, Esq., Secretary to the Board of Revenue, Fort St. George.)

Sir,

YOUR Board have in some measure been apprised by my letter of the 6th February last, No. 14, of the introduction at Myavaram and other parts of Tanjore of the New Orleans cotton, and after Captain Lawford's great success at the Upper Anicut, I am anxious to try to extend the cultivation of this cotton, in order to judge whether it can be grown as a remunerative crop or not, in Tanjore.

2. To enable us to judge of this, and to get the natives more readily to attempt a new product, a plan has suggested itself to me of granting a tract of puddagay land to such persons as are willing to try this cotton, free of assessment for a period of three years, with the understanding that an account be rendered of the out-turn per acre, showing the quantity of cotton before cleaning, and the quantity of cotton and seed after cleaning, the expenses of cultivation, and the profit derived, after deducting the Government tax, and satisfying all other demands.

3. If I have your Board's approval and concurrence, I purpose to grant 40 valies of puddagay assessed at an average tax of 23 rupees per valy, and situated contiguous to the tract of land some time assigned‡ to one Charles Tonymen, on Durkhast, and which land has been declared by a decree of the civil court to be the exclusive property of the circar, to dispose of as they may deem proper. These lands are situated on the annicut of the river "Manney," within the limits of the villages of Parembalore, Occadacoody, and Villeyanellore.

I have the honour to solicit your Board's sentiments on my proposal.

4. I beg to send herewith a specimen of this cotton grown near Vellum under every disadvantage, having been sown in December last, out of season, and consequently has had to contend against great heat and much drought.

(signed) J. Bird,

Tanjore, Kodikarray, 11 June 1849. Acting Collector.

EXTRACT from the Proceedings of the Board of Revenue, dated 30 July 1849.

IN the foregoing letter it is recommended to grant 40 valies of padoogay land, rent-free for three years, to be applied to the raising of New Orleans cotton. The Board wish to be informed how it is proposed to supply the ryots with American seed sufficient for the cultivation of the whole extent of land, for the first year, at least, of the triennial period.

(signed) T. Pycroft, Secretary.

* From Acting Collector, 12th January (in Cons. 5th February 1849) and 6th March 1849 (in Cons. 26th March 1849).

† To Collector, 30th July 1849. From Collector, 4th August 1849. In Cons., 9th August 1849.

‡ Vide Letters to Board, 12th January 1849; to Board, 6th March 1849.

To *T. Pycroft*, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

IN reply to the extract from the proceedings of the Board, under date 30 July, I have the honour to inform you that Captain Lawford has offered to supply me with some American seed, and I imagine there will be no difficulty in obtaining a further quantity from Dr. Wight, at Coimbatore, where there must be a supply on hand to a large amount.

It is not anticipated that the whole extent of land alluded to by Mr. Bird will be taken up in one year, though there can be little doubt, if success attends the first occupants, there will be no want of followers, and the experiment, in my opinion, is worth trying.

(signed) *J. F. Bishop*, Collector.
Tanjore, Kodikarry, 4 August 1849.

No. 811.—Revenue Department.

EXTRACT from the Minutes of Consultation, under date 28 August 1849.

Read the following letter:

From the Secretary to the Board of Revenue,—Submitting letter from the Acting Collector of Tanjore, suggesting that he be allowed to grant 40 valies of padagay land to such persons as may be willing to undertake the cultivation of New Orleans cotton, to be held by them, free of assessment, for three years, upon certain conditions; for accounting for produce and other particulars, being furnished by them, recommending that sanction be granted accordingly, and pointing out how the seed cotton can be obtained.

[Here enter 9th August 1849, No. 356.]

Para 1. THE Right Honourable the Governor in Council considers himself precluded by the orders of the Honourable Court of Directors, communicated in their Revenue Despatch, No. 11, dated 4th July 1848, a copy of which was furnished to the Board of Revenue, with the resolution of Government, dated 1st June 1849, from complying with the foregoing recommendation, but he will have no objection to further the project of the Collector of Tanjore for encouraging the cultivation of New Orleans cotton in that district on the principles indicated in the above and previous resolutions of Government, dated 5th December 1848, No. 1342, by permitting him to supply American seed at the expense of Government, to afford the use of implements to clean and prepare the cotton for the English market, and to present small prizes for its successful cultivation.

2. The Acting Collector of Coimbatore will accordingly be instructed to attend to the requisition of the Collector of Tanjore for seed cotton, and he will state his opinion as to the advisability of sending one of the cottage saw-gins lately received from England to the Tanjore district.

(signed) *H. C. Montgomery*,
Secretary to Government.

Revenue Department, 16th July (No. 6) 1851.

Our Governor in Council at Fort St. George.

1. WE transmit * herewith copy of a letter which has been addressed to our Chairman by Mr. J. Aspinall Turner, President of the Manchester Commercial Association, with its enclosure, being a letter from Mr. David Lees, representing that the cultivation of American cotton in Tinnevely is materially obstructed by the proceedings of the chayroot renters.

Dated 4th July
1851.

2. Mr. David Lees has recently returned from Tinnevely, where he has been engaged in the experimental culture of American cotton, and has met with such encouraging results that he has left his nephew, Mr. Arthur Lees, in the district, for the purpose of continuing and extending the cultivation. It appears, from Mr. Lees' statement, (which is supported by the letters from the Collector, Mr. Bird, copies of which are embodied in Mr. Lees' letter,) that the chayroot renters claim the right of collecting the root not only on the waste lands, but
of

* Transmitting representations from certain parties regarding the obstruction given to the cultivation of American cotton in Southern India by the proceedings of the chayroot renters.

of entering all lands appropriated to dry cultivation, and turning up the ground for the purpose of seeking for the root, and that the mode in which this operation is performed is highly destructive to the cotton plants. If permission to enter the lands be refused, the renters claim from the occupants an exorbitant amount of compensation, to the extent, as represented by Mr. Lees, of more than twenty times the land-tax.

3. It would appear to be the opinion of the Collector, that, as the revenue derived from the chayroot farm exceeds the assessment which would be placed on the land, in the event of its being all brought into cultivation, the exemption of such land from the demand of the chayroot renters would be a violation, in favour of land cultivated with American cotton, of the rule that all lands shall be assessed in relation to their capabilities, and not according to their actual produce. We must observe, however, that the chayroot rent is not in any manner an assessment on the land; and that to give to the party who pays the Government assessment the right of cultivating the land, and to another party the right of entering on the land and destroying or materially injuring the produce, is not only inconsistent with justice, but obviously tends to repress all attempts to introduce an improved system of agriculture.

4. You are well aware of the importance which we attach to the extension of the cultivation in India of cotton of a description suited to the requirements of the home manufacturer. We desire that you will immediately take the subject of this despatch into your consideration, and, if the statements submitted to us should prove to be substantially correct, that you will without delay take measures for relieving the planters from any demand in excess of the regular assessment; and if it should be found that the chayroot renters are, under their lease, entitled to compensation for being prevented from entering on the lands which, although waste at the commencement of their term, have been brought into cultivation during its currency, that compensation should be given in the shape of a proportionate reduction in the rent payable to Government, and not be demanded from the parties occupying the land, who should be liable only to the payment of the fixed assessment.

5. We also desire that on the renewal of the chayroot farms, the renters should be restricted to the uncultivated lands in collecting the root; as we are of opinion that the cultivators of the ordinary dry grains are as well entitled to protection as the cultivators of all other articles of agricultural produce, however raised.

We are, &c.
(signed) J. Shepherd,
J. W. Hogg,
&c. &c. &c.

London,
16 July 1851.

Sir, London, 4 July 1851.

I HAVE the honour to enclose a letter which has been addressed to me as President of the Manchester Commercial Association, by Mr. David Lees, who has lately returned from India, after having been engaged in carrying on some most important experiments in the Tinnevely district, which have completely proved the soundness of the views entertained by himself and the association, regarding the peculiar advantages which exist on the sandy coast land of Southern India, for the cultivation of cotton from the American seed.

Mr. Lees went out under the sanction of the Commercial Association, merely to make experiments and to ascertain facts, but the success of those experiments has induced him to establish his nephew, Mr. Arthur Lees, in Tinnevely, as a cotton planter and merchant, with a view to purchasing from the natives all the cotton which they are disposed to cultivate on his system.

The important facts ascertained by Mr. David Lees, and which were fully stated by myself from the chair of the last annual meeting of the association, have induced two other enterprising young men to go out to the same district, with the intention of settling there as cotton planters and merchants, and I have no doubt that their example would soon have been followed by many more.

At this important juncture, however, when the efforts made by the Honourable Company were about to be followed up by individual exertion, and when it seemed probable that a rapid progress would be made in the cultivation of that description of cotton, which can alone enable India to contend successfully with the United States of America, for the main supply of the article required by the British manufacturers, it appears that an unforeseen obstacle exists; which, unless it is immediately and completely removed, must entirely

entirely put a stop to all further proceedings on the part of those who were prepared to embark in this branch of business. As the letter addressed to me by Mr. David Lees very fully explains the nature of this obstacle, I need not further enter into details, but will confine myself to the expression of a confident hope, that you will immediately call the attention of the Madras Government to the circumstance in terms which will cause instructions to be forthwith given to Mr. Bird, the Collector, to make arrangements with the renters of the chayroots, so as to prevent them from either entering the cotton fields, or from claiming any compensation for abstaining from so doing; and also that he shall abandon the idea of requiring from those who propose to enclose waste lands for the purpose of cotton cultivation, an agreement to allow the diggers for chayroots to enter their fields.

If any compensation is due to these persons, surely it ought to be by a remission of so much of the rent paid by them as is represented by the waste land abstracted from them for the purposes of cotton cultivation; but it is perfectly preposterous that the cultivators who pay the Government land tax should also be subject to claims for compensation on the part of those to whom the Government had previously given rights, which if enforced would prevent all profitable cultivation.

I will only add, that so sure do I feel that the obstacle now pointed out will be removed, that I have ventured this day to assure a young man, who was intending to take his departure by the next overland mail to Tinnevely, and who is amply provided with means to carry on this culture, that he need not hesitate to carry out his project in consequence of hearing of this unforeseen obstacle, and on my assurance he has determined to act.

Trusting that you will excuse the freedom with which I have addressed you on this most important subject,

I have, &c.

John Shepherd, Esq.,
Chairman of the Honourable
East India Company.

(signed)

J. Aspinall Turner,
President of the Manchester
Commercial Association.

To James Aspinall Turner, Esq., President of the Manchester Commercial Association.

Sir, A KNOWLEDGE of the great exertions you have made to promote the culture of American cotton in India, induces me to bring under your notice a serious obstacle to the extension of that culture in the district of Tinnevely.

The obstacle to which I allude is a claim on the part of certain men to the right of entering cotton fields, to search for and dig up chayroots.

The claim of these men first became known to me on the 18th December 1850, nearly a whole year after I had commenced the culture. On that day the root renters being refused permission to dig roots in one of my cotton fields, came to me and made a claim for compensation, and I referred them to Mr. Bird, the collector. On the 23d January 1851 I saw Mr. Bird, and he then told me that the chayroot renters had lodged a complaint against me, and at the same time he said that they were allowed to dig in dry fields, and that if I refused to permit them I must give them compensation.

Nothing further transpired during my stay in India, but Mr. Arthur Lees, whom I left in charge of the cultivation, says, that the root renters again attempted to enter the cotton fields, and that on his inquiring if the men had the sanction of Government so to do, he received from Mr. Bird the following reply:

"Sir,

"Trichinidore, 20 March 1851.

"IN reply to your letter of yesterday, I have the honour to state that the chayroot renters' people have no power to break into enclosures, and are punishable for trespass should they do so.

"They have, however, a right under the terms of the chayroot renters, for which a considerable sum is paid to Government, to all the chayroot produced in this district, whether on waste land, or on land occupied with dry cultivation; and hitherto no objection has been offered, as far as I am aware, to the extraction of the root from cultivated ground. The chayroot revenue being an important item in the Government demand upon the land at Tinnevely, and being farmed out according to immemorial custom, you will, I trust, perceive the propriety of allowing the renters to gather it as usual on your fields, or making them sufficient compensation for the loss.

"I have, &c.

(signed) "C. J. Bird, Collector."

The root renters then made a demand upon Mr. A. Lees of 500 rupees for one year's compensation on 35 chains of land, a sum equal to more than twenty times the amount of the land tax.

II.
Madras.

Mr. Arthur Lees afterwards received the following letter from Mr. Bird on the subject of the root renters' claim:

"My dear Mr. Lees, Trichinidore, 16 April 1851.
"TOUCHING chayroot, it will be useful to you to have the following information: The highest rent collected in the last 20 years was 16,680 rupees. The average of the last 20 years is 9,642 rupees. The average of the last 10 years is 7,650. The present rent, which was given for three years, and will terminate on the 11th July 1852, is for 7,920 rupees per annum.

"Chayroot is found mostly on the north (called Otarsadarum, which extends to the northern boundary of this district at Veypaur) in these two talooks; the waste land from which most of the chayroot is obtained measures 3,434 chains, and the assessment of the same, if cultivated, would be 3,300 rupees. If this land, which I fancy is the best for your purpose, were all to be taken up with cotton, and the chayroot people excluded, the rent would fall to nothing, and to cover the loss to Government the assessment would have to be trebled. How would that do for the cotton planter? He would of course have the chayroot to sell, and as the price would rise, perhaps it would pay him more than cotton. I understand there are now about 50 chains only of level chayroot land taken up with cotton.

"Sincerely yours,
(signed) "C. J. Bird,"

To the above letter, Mr. A. Lees replied by stating, that he thought it would be bad policy to cripple the cultivation of American cotton in its infancy, and that though a root rent might probably be borne by a European cultivator, yet that the natives would rather not cultivate at all than pay a treble land-tax; and as for chayroot being more profitable than cotton, that was quite another thing; what we wanted was not chayroot, but cotton.

Mr. A. Lees then received another letter on the subject from Mr. Bird, from which the following is an extract:

"Trichinidore, 18 April 1851.
"I KNOW that neither Government nor the Court of Directors will allow the land to be occupied for cotton cultivation, when a higher revenue can be got for it otherwise; and unless your experiments can succeed without causing loss to Government, they may as well be abandoned at once. The question of allowing the land to be cultivated with American cotton at a lower assessment was put several years ago, and answered from home in a decided negative.

"Sincerely yours,
(signed) "C. J. Bird."

As it appeared to me from the above letters that the claim of the root renters was to be enforced, I was convinced that an insuperable obstacle was placed to the extension of the culture of American cotton amongst the natives; and I, therefore, wrote to Mr. Arthur Lees by the last mail, instructing him to enclose and cultivate 500 acres, in order that the extension of the culture might not be entirely stopped.

But it is evident from a letter I have received this week that my instructions cannot be carried out. Mr. Bird has informed Mr. Arthur Lees, that for the next two years no land is to be let for the cultivation of American cotton in the district, unless the chayroot diggers are allowed to go into the land and take what they want; and that an agreement to this effect must be signed by the party wishing to cultivate before he enters the land.

To require such an agreement from a cultivator of American cotton is not reasonable; and I shall certainly not give my consent for Mr. Arthur Lees to sign it. The root diggers who are to enter into the cotton fields are the natural enemies of the culture, and they will doubtless do all that lies in their power to destroy the plants. And the instrument they use is a most destructive one. They dig the roots by means of a spear that has a blade 18 inches long, which they strike with great force into the earth to the depth of a foot or more; and then, by pressing the handle, they force the root out of the ground. No cultivator of American cotton who has any regard for his plants can possibly allow these men with such a destructive instrument to enter into his fields.

I will here just remark that I think Mr. Bird takes too narrow and confined a view of the subject. In his calculation he limits the culture of American cotton to two talooks; but I have not the least doubt it will extend, if permitted so to do, over the whole of the sandy coast lands of Southern India, from Visseavathe in the south to Nellore in the north, a range of more than 500 miles.

The obstacle I have now brought under your notice has put an entire stop to the extension of the culture of American cotton in Tinnevely, and if it be not immediately removed, the approaching sowing season will be completely lost.

London, 3 July 1851.

I have, &c.
(signed) David Lees.

Revenue Letter from Madras ; dated 28 November 1851 (No. 65).

Para. 1. WE have the honour to acknowledge the receipt of your letter in this department, dated 16 July 1851 (No. 6), on the subject of a complaint preferred by Mr. David Lees, of the obstruction occasioned to the cultivation of American cotton in the Tinnevelly district, from the proceedings of the chayroot renters, and requiring us to take it immediately into consideration, and apply the necessary remedy.

2. We communicated your letter, and the correspondence accompanying it, to the Board of Revenue, desiring them to call upon the Collector of Tinnevelly for a full report on the subject, and we now beg to submit a copy of their reply, which will inform your Honourable Court of the real circumstances of the case. We have, in reply, informed the Board that we regard the recognition of a right to dig for chayroot in any given extent of land to be incompatible with the cultivation of American, or indeed any other description of cotton in such land, and in consequence, notwithstanding the immediate sacrifice of revenue which the measure will involve, we have directed that the present chayroot farm be cancelled, and that the terms of future farms be so restricted as, pending at least the issue of our reference to your Honourable Court, to debar the renters entering upon any ground which now is or may hereafter be taken up for cultivation, and that whether of cotton or of any other produce.

Cons., 18th November 1851, Nos. 23, 24.

3. Referring to the report of the Collector of Tinnevelly and the Board of Revenue, on the questions which have arisen on a consideration of the subject, we solicit the further instructions of your Honourable Court for our guidance, and more especially on the points raised by the Board in para. 9 of their letter.

EXTRACT Fort St. George Revenue Diary to Consultation of 18 November 1851.

Received the following Letter :

(No. 439.)

From *W. H. Bayley*, Esq., Secretary to the Board of Revenue, to *Sir H. C. Montgomery*, Bart., Chief Secretary to Government.

Sir,

Para. 1. I AM directed by the Board of Revenue to acknowledge the receipt of Extract Minute of Consultation, 6 September 1851, transmitting, for their early report, copies of Despatch from the Honourable Court of Directors, Revenue Department, No. 6, of 1851, dated 16th July 1851, with a communication addressed to them by the President of the Manchester Commercial Association, representing that Mr. David Lees, recently returned from Tinnevelly, had complained that the cultivation of American cotton in Tinnevelly was materially obstructed by the chayroot renters.

No 23:

In Cons. 8th September 1851.

2. In their despatch the Honourable Court direct that if the statements of Mr. D. Lees should be found to be substantially correct, measures should be adopted to relieve the cotton planters; and if, under the terms of their lease, the renters be found to be entitled to compensation for being prevented from entering on lands which, although waste at the commencement of their rent, may have since been brought under cultivation, that such compensation should be given them in the shape of a proportionate reduction in the rent payable to the Government.

3. The Board, on receipt of these orders, called upon the Collector to suggest the means by which the Honourable Court's wishes could be best carried out, and to state the details of the system of renting chayroot. They also requested he would transmit copy of the licence granted to the renters, and of any correspondence which had passed between himself and Mr. Lees, on the subject of the chayroot rent, and the evil complained of, or of any order or decision passed upon it.

Pro. to Tinnevelly, 8th September 1851.

4. In his reply* the Collector encloses copies of the only official communication received by him from Mr. Arthur Lees, and of his answer, and states that he was aware of the impediment which the chayroot rent opposed to the successful cultivation of American cotton, and that he would have referred the matter to higher authority if Mr. Lees had

(Signed) (Name)

made

* From Tinnevelly, 17th September; in Cons. 13th October 1851.

II.
Madras.

made any further official application; but failing to obtain replies or further attention from him, he was constrained to pass an order (*Vide* Enclosure No. 4), that no more land should be taken up for cotton cultivation without a stipulation that the holder would not interfere with the operations of the chayroot renters.

5. The second enclosure to the Collector's letter is copy of the puttah granted to the chayroot renter for three fushes, 1259 to 1261 inclusive, at an annual rent of 7,920 rupees, but reserving the right of the Board to discontinue the rent at any time during the currency of the entire term. The first two years have already expired, and the date for the payment of the 1st kist of fushy 1261 will be the 11th October 1851; and it is therefore open to the Board to cancel the rent, especially as the season for gathering the root is not yet commenced, and to direct the Collector to invite fresh tenders for a new rent under modified terms, as suggested, by the Collector restricting the right to lands not under cultivation, which, in the opinion of the Board, would most readily give effect to the wishes of the Honourable Court.

6. At the same time I am desired to observe that the Board do not view the demand made upon Mr. Lees as the "preposterous" exaction which it is represented to be. It would seem to be a well understood condition attached to the occupancy of land producing chayroot in Tinnevely, that the root shall still remain the property of Government and be leased out separately. The process of digging out the chayroot is no doubt injurious to the crop cultivated, but it is observed that the rent paid for the cultivation of the land is as low as 4½ annas, or about 6d. an acre, and with this very small rent it may it appears be cultivated with profit, notwithstanding the disadvantage attached to the tenure. No distinct reservation of the chayroot appears to be made in the puttahs or leases granted for such lands, and it is likely that in consequence of this Mr. Lees may have remained in ignorance of the condition on which it was ordinarily occupied at the time he took it up. Had he been aware of this he would hardly have considered it a legitimate cause of complaint, that he was not permitted to occupy the land to the serious loss of Government. Mr. Bird states that some of the land will produce as much as 75 rupees worth of chayroot per chain, and if the transaction be viewed as an ordinary financial one, it could hardly be expected that the Government should consent to merge its higher beneficial interest in the land in the smaller one, and forego a profit of 75 rupees a chain, that a cultivator might occupy the land at one rupee a chain. No private landowner would consent to such terms, but would prefer that the land should remain uncultivated, if in that condition it would spontaneously yield a crop greatly more valuable, and a proportionately higher return.

7. It is not the intention of the Board by these remarks to offer any objection to carrying out the Honourable Court's instructions for remitting the demand on account of chayroot, but they think that it should be considered as an exceptional case, and be looked upon in the light of a bonus, or premium, offered for the encouragement of American cotton at some sacrifice of public revenue.

8. It does not clearly appear from the letters, either of the Collector or Mr. Lees, whether there are any peculiarities in the land producing chayroot which render it the only land which could have been selected for prosecuting the experiment in raising American cotton; but from the desire of Mr. Lees to occupy these particular spots of land, and his remark, that the enforcement of the claims of the chayroot renters would constitute "an insuperable obstacle to the extension of the cultivation of American cotton amongst the natives," the Board would have been led to believe that no other land was well adapted for the purpose. If this be really the case, the experiment would not seem to promise any larger result than the cultivation of the whole tract, which is stated by Mr. Bird to be about 3,434 chains, or 12,500 acres. In his letter to the President of the Manchester Commercial Association, however Mr. Lees repudiates this idea, and observes that he "has not the least doubt that it (the cultivation of American cotton) will extend, if permitted so to do, over the whole of the sandy lands of Southern India, from Visvathie in the south to Nellore in the north, a range of more than 500 miles." This is a much more encouraging prospect as relates to the general introduction of American cotton, and the supply of the English market; but the Board do not, as at present informed, clearly understand why with so extensive a tract of country adapted for that description of cultivation it was necessary for Mr. Lees absolutely to confine his operations to that small portion of it producing chayroot, or how "the obstacle (the chayroot rent) could be held to have put an entire stop to the extension of the cultivation of American cotton."

9. In the concluding paragraph of their despatch, the Honourable Court direct as follows: "We also desire, that on the renewal of the chayroot farms, the renters should be restricted to the uncultivated lands in collecting the root, as we are of opinion that the cultivators of the ordinary dry grains are as well entitled to protection as the cultivators of all other articles of agricultural produce, however raised." The Board propose also to communicate this as an instruction to the Collector of Tinnevely. Previously to doing so, however, they would wish to be informed whether the more valuable though spontaneous product of the land, viz., the chayroot, is to be considered as the property of the cultivator hereafter. There would be no advantage in restricting him from collecting it, if it cannot be gathered by any other party; but, on the other hand, it is to be observed that, while the cultivation assessment only averages, as before observed, 4½ annas per acre, the value of the chayroot,

To Mr. Lees, 16th
April 1851. Enclo-
sure in F. G., 6th
September 1851.

chayroot, even at the present low rent, averages 10 annas per acre. The produce in this respect seems very unequal. Mr. Bird states that in some places the root is worth 75 rupees per chain, or 20½ rupees per acre; and if the root be given up, it would certainly be worth the while of ryots to take up the more productive spots ostensibly for cultivation, but in reality to collect the chayroot. The assessment of the entire tract of 3,434 chains being only 3,300 rupees, it would obviously be worth the while of the renters, who pay 7,920 rupees, to apply for the whole on a cultivation puttah, and hold it on the ordinary conditions. The same remark will apply to the land occupied by Mr. Lees. If he is held to have acquired the customary right in the land he occupies without restriction, he is also entitled to all spontaneous produce, and may collect the chayroot if, on his own account, he finds it worth while. That gentleman would not probably be disposed to do so to the detriment of his cotton crops, but there is nothing to prevent his disposing of the land to-morrow to a native cultivator, and a right which has been recognised as appertaining to him could not be withheld from his native successor. It appears probable, therefore, that no further rent of any consequence can be long expected for the chayroot.

10. In the meantime, the Board have directed Mr. Bird to suspend the collection of the first instalment of the chayroot rent for fusly 1261, which falls due on the 11th instant, pending the further orders of Government upon the modification of the rent, to the revision of which no obstacle is at present presented.

(signed) W. H. Bayley, Secretary,
Revenue Board Office, Fort St. George,
13 October 1851.

To W. H. Bayley, Esq., Secretary to the Board of Revenue, Fort St. George.
Sir,

Para. 1. WITH reference to the extract from the proceedings of the Board of Revenue, dated 8th instant, I have the honour to state that the only official correspondence that has passed between Mr. Arthur Lees and myself regarding the claim made by the chayroot diggers to be allowed to take the chayroot from the lands cultivated with American cotton, or to receive compensation for its value, consists of one letter and a reply.*

2. I am quite sensible of the impediment which the present chayroot renting system opposes to the successful cultivation of the description of produce, and wished Mr. Lees to address me officially on the subject, in some way that might enable me to make a reference to the Board. He preferred, however, adopting a different course.

3. From the enclosed translation of the chayroot renters' puttah, the Board will perceive that it is open to them to cancel the remaining portion of the current lease, by doing which the wishes of the Honourable Court of Directors will be effectually carried out; and as the first kist for the present fusly is not due, and the season for gathering the root not arrived, this will be a very convenient time for adopting such a measure. Tenders may then be invited for a new rent under modified terms, restricting the right to lands that are not under cultivation.

4. Chayroot is found only in sandy places, and in considerable quantities nowhere but quite close to the sea-side. Some of the spots selected by Mr. David Lees for planting American cotton, and where his success is understood to have answered his expectations, are within a few hundred yards of the beach, and just where chayroot is found in greatest abundance. The value of the root found in such places is stated to be, in average seasons, about 75½ rupees per chain of land, and consequently serious consideration to the renters; but as such land has heretofore produced little or nothing besides, it is assessed very low, and the Government demand from the cultivator is, on an average, less than a rupee per chain.

5. I had many conversations with Mr. Lees on the subject of the claim of the renters, and a few notes passed between us, which I think are all given or alluded to in Mr. David Lees' letter to Mr. Aspinall Turner.

6. Copy of an English translation of a Tamil petition received from the chayroot renters, together with translations of my orders to the tahsildar, and of the only arzee received from him on this subject, are submitted: from which the Board will see that, failing in my endeavour to procure replies or any attention whatever from Mr. Lees, I was constrained to determine, for the satisfaction of the renters, that no more land should be taken up for cotton cultivation, without a stipulation that the operations of the renters should not be interfered with.

7. I have from Mr. Lees, dated 19th March 1851. To Mr. Lees, dated 20th March 1851. Copies enclosed.

II.
Madras.

7. I have omitted to reply to a few questions in the Board's proceedings under notice, because the information is not at hand, and does not seem of so much importance as to justify my delaying to make this report.

(signed) *C. J. Bird,*

Tinnevelly, Tencausey, Collector.
17 September 1851.

(No. 1.)

To the Collector of Tinnevelly.

Sir,

I SHOULD be glad if you will inform me if the men who wish to break into my cotton fields at Trichendoor, and in the neighbourhood to take out chayroot, have received the full sanction of the Government so to do; or have they only received a conditional sanction? My fields are fenced all round.

Trichendoor, 19 March 1851.

(signed) *Wm. Arthur Lees.*

Enclosure, No. 1.

To *W. A. Lees, Esq.,* Trichendoor.

Sir,

In reply to your letter of yesterday, I have the honour to state that the chayroot renters' people have no power to break into enclosures, and are punishable for trespass should they do so.

They have, however, a right, under the terms of the chayroot rent, for which a considerable sum is paid to Government, to all the chayroot produced in this district, whether on waste land or land occupied with dry cultivation; and hitherto no objection has been offered, as far as I am aware, to the extraction of the root from cultivated ground. The chayroot revenue being an important item in the Government demand upon the land in Tinnevelly, and having been farmed out according to immemorial custom, you will, I trust, perceive the propriety of either allowing the renters' people to gather it as usual from your fields, or making them sufficient compensation for the loss.

(signed) *C. J. Bird, Collector,*

Tinnevelly, Trichendoor,
20 March 1851.

Enclosure, No. 2.

TRANSLATION of an Ejara Cowle Puttah, issued by *C. J. Bird, Esq.,* Acting Collector of Tinnevelly, to Four Persons, viz. Annamalay Appah Pillay, of Tinnevelly; Mariacatumbee Maracayen, of Cayamole; Soodalamootoo Nadan, of Auroomooganary; and Peramamootoo Nadan, residing in the West-street of the last-mentioned Village; under date 12 October 1849.

WHEREAS the exclusive privilege of digging out and applying to yourselves the chayroot growing in the seven talooks noted in the margin*, and in the limits of Tutacorin and its islands, has been rented to you for three years, from fusly 1259 to 1261, at an annual rent of 7,920 rupees, or for 23,760 rupees upon the whole, you are to pay the said sum of twenty-three thousand seven hundred and sixty rupees in the following kists annually:

Kists for the Annual Rent of 7,920 Rupees.

	Rs.		Rs.
11 October	792	11 March	792
11 November	792	11 April	792
11 December	792	11 May	792
11 January	792	11 June	792
11 February	792	11 July	792

2. As you have, in order to conform to the items of the rent for fusly 1259, named the persons noted in the margin† as your sureties, and deposited a sum equal to one kist of 792 rupees, you are accordingly required to continue furnishing before the opening of every fusly the security and ready money deposit, and to obtain at the commencement of the year the usual orders

* Nelleeambalum, Vedoogramum, Nangoonary, Vullyoor, Streevygoontum, Oottapedarum, and Punjamall.

† Pundarum Pillay and his co-heirs, of Aurampannie; Ramanada Pillay, of Aurampannie; Ramasawmy Pillay, of Aurampannie; Mackoodundeen Maraikan, of Cayamole; Meeraneenamaracayen, of Cayamole; and Peramamootoo Nadan, of Auroomooganary.

orders from the hoozor. If you fall in arrear in making payment according to the kists, the balance, with interest at 12 per cent., and charges for sibbendy that may be entertained on that account, will be made good from the sale proceeds of your property and that of your securities, which will be sequestered and put up to auction according to regulations. In the event of your sub-renting the farm, you are to issue cowles to the sub-renters, taking from them moolchilkas and rajeenamahs, according to rules. You are further required to take care not to do injury to the poonjah, &c. crops when digging out the chayroot.

3. In the event of the Board of Revenue directing the discontinuance of the rent at any time during this three years' lease, from fusly 1259 to 1261, their orders shall be carried into effect. In the absence of such orders, you are to conform to the above terms during the three years in question.

12 October 1849. (signed) C. J. Bird, Acting Collector.
(True translation.)

(signed) C. J. Bird, Collector.

(No. 3.)

To C. J. Bird, Esq., Acting Collector of Tinnevely, &c., &c., &c.

The humble Petition addressed by Annamalay Appa Pillay, Marakatumby Marakayen, Soodamootoo Nadan, the tinging root Esaradars of the whole zillah in Tinnevely, from the fusly 1259 to 1261.

Most respectfully sheweth,

1st THAT there is an habitual custom from the days of disposing on the Esara of the tinging roots (otherwise called in Tamil) as to possess the Esaradars their roots producing in the Poonjah fields doing no any harm to the plants, and the husbandmen to possess their crops without corrupting the roots amongst their plantations, as it is mentioned in the puttah given to the said Esaradars.

* Tamil characters not printed.

2d. That Mr. D. Lees coming at Trichendoor has cultivated the cotton vegetables in about 70 chunklies of ground lying the sides of the villages, namely, Trichendoor, Veerapandianputnum; Coilpatam, and Tutacorin. There were large quantities of tinging roots amongst Punjah grounds. In the rainy season, when the ground was damp, the petitioners wished to gather their productions of the roots, but the above-mentioned gentleman letting not them to enter into his punjah lands detained to their legal possession of the roots and caused the petitioners to much loss.

3d. That concerning which the petitioners have been attempted to complain to the tahsildar of the Punjamall talook on 17th January, with submitting a petition to your Honour on the date 20th of the month by the post. The case is not yet brought into conclusion by your Honour, or by the tahsildar.

4th. That because an order has not been produced from your Honour about the roots, that they may be plucked out by the petitioners from the Poonjah lands of the gentleman, or they may be kept in safety amongst the plantations, being not spoiled by the gentleman, as far as the case be held into inquiry. Many productive roots are very much spoiled by raking by the rakers the weeds among the plants, and digging the ground by hoes so as the petitioners may by which meet some loss.

5th. That by the want of rain in this year having been caused the petitioners into much damages, suffer great trouble to pay in circar the contracted monies of their lease, such as taking debts and selling their jewels, and the like. Through such distressful and unlucky occasions the petitioners are suppressed by Mr. Lees, also about their right possession of the said roots. If your Honour be pleased to raise the poonjah field named Andy Ayenvelly, situating in the west side of Trichendoor, in distance not more than a quarter mile then well aware the being of the roots valued at 200 rupees amidst the very smaller price of the cotton plantation contained one and half chunklies of punjah ground.

6th. That the petitioners therefore have been humbly attempted to solicit your Honour by the means of this petition, that your Honour may graciously be pleased to issue an order to be plucked out and possessed the roots called () from the punjah lands of Mr. D. Lees without any restraint by the gentleman, and to do redress according to the justice.

* Tamil characters not printed.

For which act of goodness the humble petitioners, as in duty bound, shall ever pray.

8 March 1851.

(signed, in original, in Tamil characters.)

(True copy.)

(signed) C. J. Bird, Collector.

II.
Madras.TRANSLATION of an Order issued by C. J. Bird, Esq., Collector of Tinnevely to the Tahsildar of the Punjamall Talook.
No. 4.)

TRANSLATION of an Arzee addressed to C. J. Bird, Esq., Collector of Tinnevely, on the 20th January 1851, by Annamalyappa Pillay, Marakatumbee, Marakan, Soodalamoottoo Nadan, and Peramamoottoo Nadan, the Chayaroot Renters of the whole district, for three years, from Fusly 1259 to 1261, by the Tahsildar of the Punjamall Talook.

In the Ejara puttahs granted to us it is stated that we are to dig and take the chayaroots from the ground cultivated with poonjah, but our man, named Soodalamoottoo Pillay, came and told us that on his proceeding with bars to dig up the roots from the lands, measuring about 70 chains, in Trichendoor, Raneemaharajapoorum, Veerapondianputnum, and Collipattam, &c., places where the English cotton seeds are sown by Mr. Lees, who is come to Trichendoor for the said purpose, and where the chayaroots are grown in abundance, the person employed there by that gentleman for watching the above poonjah lands having prevented him from digging up the roots, saying that he should not take the roots without the permission of the above gentleman; they both disputed with each other, and went to the tahsildar of the Punjamall talook, and informed him of the circumstance, and that the tahsildar strictly ordered the map of Mr. Lees that he should allow the roots to be dug up from the poonjah lands cultivated with cotton by the said gentleman, without starting any objection. Thereupon we sent our man again with bars to the above places to dig up the roots, but he, having met with the same opposition as before, he and the said watcher, after disputing with each other, went to the above gentleman, and informed him of the circumstances, who told our man, Soodalamoottoo Pillay, that he should not take out the roots from the punjah lands, and that if he does so, he will be dealt with deservedly, and so prevented him. Afterwards he destroyed the roots by digging some of the poonjah lands for removing weeds, on which our man, Soodalamoottoo Pillay, gathered some of the roots that were destroyed, and having shown them to the tahsildar, informed him of what had happened; the tahsildar told him that he would send for the man of the said gentleman, and give orders after inquiry into the case. While so, that gentleman who prevented us from taking the chayaroot produce from the said cotton poonjah lands, included in our rent without waiting to know the issue of the case under inquiry, is destroying the roots that are grown in the above cotton poonjah lands, contrary to law. If such destruction is carried on, how can we reap the produce, and pay the circar dues? We therefore beg that your Honour will be kindly pleased to allow us to dig up the roots, and to send orders to the above gentleman not to prevent us from taking the chayaroots so dug out, and also not to destroy the same before they are taken out from the ground, and so protect us.

(signed) Vellyampillay, Accountant of Ejara Annamalyappa Pillay.
Ditto Peramamoottoo Nadan.
Ditto Soodalamoottoo Nadan.

Indorsement No. 45 to the Tahsildar of Punjamall Talook.

You are to peruse this complaint, and to inquire and report the circumstances connected with the case.

Trichendoor, 22 January 1851.

(signed) C. J. Bird,
Ag. Collr.

TRANSLATION of an Arzee, addressed by the Tahsildar of Punjamall Talook, under date 13 February 1851, to C. J. Bird, Esq., Collector of Tinnevely.

THE Indorsement No. 45, dated 22 January last, directing me to inquire and report what had occurred in the matter of the petition addressed by Annamaly Appa Pilly, Marakatumbee Marakan, Soodamoottoo Nadan, and Paramamoottoo Nadan, the chayaroot renters of the whole district for three years, from fusly 1259 to 1261, stating that Mr. Lees, residing at Trichendoor, prevented them, contrary to the puttahs granted to them by the circar, from digging up the roots from the poonjah lands, measuring about 70 chains, and cultivated with Europe cotton, has been received.

In reply, I beg to state, that no sooner was the above indorsement received by me than I sent for Sobramoneay Pillay, the writer of the above said gentleman, and after giving him the complaint to Mr. Lees, and bring me his answer; he promised to do so; but not having returned with any answer, I wrote to him a letter, together with the indorsement, in returning which the writer above-mentioned informs me that his master gave him no answer; consequently, I beg to bring this to your Honour's notice, and to return the indorsement received from your Honour.

(signed) Andea Pillay, Tahsildar.

TRANSLATION of an Order issued by *C. J. Bird*, Esq., Collector of Tinnevely, to the Tahsildar of the Punjamall Talook.

THE petition from Annamalai Uppa Pillay and others, the chayaroot renters of the whole district, from Fusly 1259 to 1261, is herewith forwarded. The petitioners request that Mr. Lees should be desired not to dig out and spoil the chayaroot growing on the lands cultivated with cotton by him, and they, permitted to apply the same to their use; you are, therefore, directed to peruse the petition, communicate its purport to the said gentleman, to send for his people and the renters, as well as four other respectable persons, and in their presence to ascertain correctly the extent of land cultivated with cotton by that gentleman, and the quantity and value of chayroot that would grow in that land to the advantage of the renters, and to report the same to the huzzoor, with particulars. You are also required to return the petition in question.

Dated 29th April.
No reply has yet been received to this order.

(signed) *C. J. Bird*,
Collector.

Trichendoor, 5 May 1851.

TRANSLATION of an Order issued by *C. J. Bird*, Esq., Collector of Tinnevely, to the Tahsildar of Punjamall Talook, under date 5 August 1851.

As Mr. Lees informs me that he wants, for the purpose of American cotton cultivation, 120 chains of land, near Cusbah Trichendoor, and 10 chains on the Terry or Sand hill at Suvisashapoorum, and that he will not prevent the chayroot renter's people (when they come) from gathering the root growing in the cultivated land, you are directed to render him every assistance, and procure the said extent of land for him. The said gentleman will return thither in about a month more; you are, therefore, required in the meantime to make the necessary inquiries, and to exert your best to get him the above land. If you in any way neglect to do so you will incur my severe displeasure.

(signed) *C. J. Bird*, Collector.

To the Collector of Tinnevely.

Sir,

WITH reference to your letter of the 17th September 1851, and its Enclosure, No. 2, being the puttah granted to the chayroot renter in your district, in which it is reserved to the Board to discontinue the rent during any time of its entire term, I am directed by the Board of Revenue to request that in the event of the amount of the first kist, which was due on the 11th October 1851, not having been already received, you will suspend its collection until further orders, and, in the event of your having already received it, that you will hold it in deposit, and will meantime prevent the gathering of the root, intimating the same to the Board at your early convenience.

In Cons. 13th October 1851.

(signed) *W. H. Bayley*,
Secretary.

Revenue Board Office, Fort St. George,

13 October 1851.

(No. 1143.)

1. THE Right honourable the Governor in Council has had under his consideration the correspondence relating to the complaint preferred by Mr. David Lees respecting the obstruction occasioned to the cultivation of American cotton in the Tinnevely district from the proceedings of the chayroot farmers. The recognition of a right to dig for chayroot in any given extent of land, appears to the Government to be incompatible with the cultivation of American, or indeed of any other description of cotton, in such land. Notwithstanding the immediate sacrifice of revenue which may be caused, they therefore direct that the present chayroot farm be cancelled, and that the conditions under which the farm is to be given for the future should be so restricted as to debar the renter from entering on any land which now is, or may from time to time be taken up for cultivation, whether of cotton or of any other produce. The Board of Revenue will be pleased to instruct the Collector of Tinnevely accordingly. The Government will, however, report the whole correspondence for the consideration of the Honourable the Court of Directors at an early date.

No. 24.

Court's despatch,
16th July 1851, p. 5.

2. With respect to the point propounded in para. 9 of the Board's letter, the Government apprehend that it would not be advisable until at least the pleasure of the Honourable Court upon the general question be known, to interfere with the cultivator in respect to the appropriation of any chayroot that may be produced in his land.

(signed) *T. Pycroft*,
Secy. to Government.

Fort St George, 17 November 1851.

Revenue Department, 21st April. (No. 6) 1852.

Our Governor in Council at Fort St. George.

Chayroot farm in
Tinnevely.

1. IN your letter, dated the 28th November last (No. 65), you have reported your proceedings consequent on the receipt of our despatch of the 16th July (No. 6) 1851, relative to the obstruction caused to the extension of the cultivation of American cotton in Tinnevely by the existence of the chayroot farm, and you have solicited our further instructions in the matter.

2. We consider that if the chayroot renters are restricted from entering on cultivated lands in search of the root, the occupants of the lands should be considered as entitled to collect it on their own account, as it appears to us that the payment of the assessment confers a full right to all the produce of the land, whether spontaneous or cultivated. The amount of the assessment is however, a question still open for consideration. The Collector, Mr. Bird, states that these lands, which are found to be peculiarly suited to the cultivation of American cotton, have heretofore produced little or nothing besides chayroot, and have in consequence been assessed at a very low rate; and the Board of Revenue remark that, while the cultivation assessment only averages $4\frac{1}{2}$ annas per acre, the value of the chayroot rent averages 10 annas per acre.

3. With every desire to encourage the cultivation of American cotton, we see no reason for continuing this low rate of assessment, which we presume to be subject to revision at the pleasure of the Government. The rule which we desire to see followed is, that all lands should be assessed according to their capability, and not according to their actual produce; and if the lands in question are capable of paying a given assessment per acre when allowed to produce chayroot, we think that that amount should be levied from them whenever occupied, leaving it at the option of the occupant to cultivate cotton or whatever he may please, or, if he prefer it, to allow the lands to remain uncultivated, obtaining his return from the spontaneous production of chayroot.

4. We desire that this part of the question may be reconsidered by you with reference to these observations, and the result communicated to us.

We are, &c.
(signed) J. W. Hogg.
R. Ellice.
&c. &c.

London, 21 April 1852.

EXTRACT Revenue Letter from Fort St. George, dated 26th October
(No. 58) 1852.

Letter, dated
21st April (No. 6),
1852.

33. WE furnished a copy of this despatch to the Collector of Tinnevely, through the Board of Revenue, in order to the subject of the assessment of the chayroot lands of that district being considered and reported on with reference to the observations of your Honourable Court.*

* Advert to the proceedings of this Government consequent on their despatch relative to the obstruction caused to the extension of American cotton in Tinnevely by the existence of the chayroot farm. Observe, that if the chayroot renters are restricted from entering on cultivated lands in search of the root, the occupants should be considered as entitled to collect it on their own account, inasmuch as the payment of the assessment confers a full right to all the produce of the land, whether spontaneous or cultivated. The question of assessment is, however, still open to consideration; and, adverting to the nature of the produce from these lands, which are represented to be peculiarly adapted to the cultivation of American cotton, and to the mode in which the assessment is charged, the Honourable Court see no reason for continuing the present low rate of assessment; desire that all lands be assessed according to their capability, and not according to their actual produce, and direct that this part of the subject be reconsidered.

EXTRACT Revenue General Letter from Madras, dated 7th March 1854, No. 11.

Para. 15. REFERRING to para. 33 of our letter, dated 26th October 1852, No. 58, we have the honour to forward the correspondence* which has since taken place with the Board of Revenue on the subject of the assessment of chayroot lands in the district of Tinnevelly.

EXTRACT Fort St. George Revenue Diary to Cons. of 20th May 1853.

29th April received the following :

(No. 176.)

From *W. H. Bayley*, Esq., Secretary to the Board of Revenue, to *Sir H. C. Montgomery*, Bart., Chief Secretary to Government.

No. 9.

Sir,

Para. 1. WITH reference to extract from Minutes of Consultation, dated 5th June 1852, forwarding copy of a despatch from the Honourable the Court of Directors respecting the assessment of the chayroot lands in the district of Tinnevelly, I am directed by the Board of Revenue to submit herewith, for the information of the Right Honourable the Governor in Council, the accompanying report from the Collector of that district on the subject.

In Cons. 21st June 1852.

19th March, in Cons. 25th April 1853.

2. The experiment of growing foreign cotton on lands producing chayroot is stated to have proved a failure; Messrs. Longshaw, from Manchester, have abandoned their endeavours, and Mr. Lees is likely also to give up his attempts. The native cultivators have never raised any objections to the immemorial custom of renting to others the spontaneous produce of the lands cultivated by them, but, on the contrary, would prefer the old system to raising the assessment of the land, which would necessarily follow a change; the Board would therefore support the recommendation of Mr. Bird to refrain at present from making alterations in the assessment.

3. In the event of a change being determined upon, Mr. Bird has submitted certain propositions regarding the future assessment of these lands; but the Board do not deem it necessary to enter into any discussion regarding them at present, as the Government may perhaps sanction the former system being reverted to.

(signed) *W. H. Bayley*,

Revenue Board Office, Fort St. George, Secretary.
25 April 1853.

To *W. H. Bayley*, Esq., Secretary to the Board of Revenue, Fort St. George.

Sir,

Para. 1. I HAVE the honour to submit the opinion called for in extract from the Proceedings of the Board of Revenue, dated 21st June last, upon the proposition contained in the Honourable Court of Directors' despatch, dated 21st April 1852, to revise the present assessment of land which is productive of chayroot.

2. Mr. Lees is the only person that has as yet manifested strong repugnance to the old system of renting out the chayroot, with the privilege of entering cultivated lands in search of the product. Even Messrs. Longshaw from Manchester, who were induced to embark in the speculation of growing New Orleans cotton on the sandy tracts of this coast, have admitted to me that the root can be taken out of the cotton fields without injuring the plants; Europeans would, however, always oppose a right of entry into their enclosures being vested in a chayroot renter.

3. Natives who have been familiar with the custom from time immemorial have no such antipathy, and would much rather have the old system continued than the assessment of the land raised.

4. Now as the experiment to grow foreign cotton in land productive of chayroot has failed egregiously, the quantity obtained per acre being insufficient to repay the cost of culture; and as Messrs. Longshaw have already abandoned the enterprise, and Mr. Lees cannot possibly hold on much longer, it would be better in my opinion to refrain at present from making any change in the assessment. But lest this opinion should not meet with concurrence, I shall proceed to describe the alterations which seem to me best calculated to accomplish what the Honourable Court has in view.

5. Land which is regularly tilled every year does not produce much chayroot, its growth being checked by the operations of ploughing and weeding. The interests of the renter are therefore not materially affected by his being excluded from those fields, while to raise the assessment would press hard upon the cultivators who have long held, and, it may be, improved them. It seems to me just, therefore, to confine the measure of raising the assessment,

* Chayroot lands in the district of Tinnevelly: Diary, 20th May 1853, Nos. 9, 10. Diary, 26th July 1853, Nos. 45, 46. Diary, 14th October 1853, Nos. 31, 32.

II.
Madras.

assessment, if it is to be carried out, to those lands which were waste of long standing up to the time when Mr. David Lees set on foot his experiments in Fusly 1259, and began to inclose old waste land, among which were those most productive of chayroot.

6. The whole of the wastes in which chayroot is found is never likely to be under cultivation in any year, and I venture to assume that a chayroot rent will always be taken for about half* the past ten years. I would propose therefore to add to the assessment of the land, which was ancient waste up to Fusly 1259, such an increase as will suffice to produce an excess revenue, should it be taken up for cultivation, amounting to about half the average chayroot rent for ten years past.

7. It will be necessary, however, in that case to introduce some rule to prevent persons from taking up lands which are known to produce chayroot abundantly, on pretence of cultivation, and to make a great profit out of the root on payment of a small tax. For this purpose I beg to suggest that all fields not ploughed and sown by the 15th of December of any fusly shall be declared open to the chayroot renters for one month. This will in some measure guard both interests, because cultivation of dry grains is always commenced before the monsoon, and the operations of the chayroot seekers cannot be commenced until after the rains have brought the plant to view. It will be necessary also to refuse cowles for bringing land productive of chayroot under cultivation by the plough.

8. On the above principles the annexed table has been prepared from the best information the tahsildars could obtain regarding the localities and extent of ground wherein chayroot grows more or less abundantly, from the ryots and persons who have been accustomed to search for it, and I submit it for the consideration of the Board, but without thinking it desirable that the alteration of assessment should be made; I think, however, that whether the assessment is raised or not, the rules proposed in the preceding paragraph are worthy of adoption, for without some such provisions the chayroot revenue is likely, before long, to become a cipher.

(signed) C. J. Bird,

Tinnevely, Trichendoor,
19 March 1853.

Collector.

STATEMENT showing the Extent of Immemorial Waste Lands productive of Chayroots, prepared in Fusly 1262, with reference to the Accounts of Fusly 1259.

Classification of Land.	Total Extent of Land.	Poonjah Teerwah for the same.	Additional Teerwah per Chain on account of the Chayroots.	Amount of Chayroot Bariz according to the Rates in Column 4.	Total of Columns 3 and 5.
1.	2.	3.	4.	5.	6.
1st Sort	2,197 $\frac{1}{2}$	3,223 11 3	1 8 -	3,296 5 6	6,520 - 9
2nd ditto	1,191 $\frac{1}{2}$	1,565 12 5	12 - -	893 9 3	2,459 5 8
3rd ditto	497 $\frac{1}{2}$	120 15 8	6 - -	36 10 -	157 9 8
4th ditto	413 $\frac{1}{2}$	533 5 -	2 - -	51 11 6	585 - 6
5th ditto	30	9 2 4	1 - -	1 14 -	11 - 4
TOTAL	3,930 $\frac{1}{2}$	5,452 14 3	- - -	4,280 2 3	9,733 6

The chayroot bariz, on an average of 10 years, from Fusly 1250 to 1259, comes to Rs. 7,749. 8., half of which, Rs. 3,874. 12., is Rs. 405. 6. 3. less than the amount entered under column 5.

(signed) C. J. Bird, Collector.

(No. 534.)

No. 10.

Para 1. UNDER the circumstances represented by the Collector of Tinnevely, the Right Honourable the Governor in Council agrees with the Board of Revenue that it is not advisable to make any alteration for the present in the assessment of the lands producing chayroot in that district.

2. The Board have not noticed the suggestion contained in the concluding sentence of Mr. Bird's letter; such provisions as are there alluded to are necessary for the maintenance of the chayroot farm.

Ordered that the above resolution be communicated to the Honourable Court of Directors in reference to their Revenue Despatch, No. 6, dated 21st April 1852.

(signed) T. Pycroft,

Fort St. George,
14 May 1853.

Secretary to Government.

EXTRACT Fort St. George Revenue Cons. of 26th July 1853.

Read the following letter:

(No. 308.)

From *B. Cunliffe*, Esq., Sub-Secretary to the Board of Revenue, to *Sir H. C. Montgomery*,
Bart., Chief Secretary to Government.

No. 45.

Sir,

With reference to para. 2 of Extract Minutes Consultation, dated 14th May 1853, I am directed by the Board of Revenue to submit, for the information of the Right Honourable the Governor in Council, the accompanying letters from the Collector of Tinnevely, dated 17th and 18th June 1853, on the subject of the chayroot farm.

2. In para. 7 of his letter, dated 19th March 1853, the collector proposed the following rules as necessary for the maintenance of the revenue derived from that source, viz., 1. that all fields not ploughed and sown by the 15th of December in each fussy, shall be open to the chayroot renters for one month certain at least; and, 2. that cowles shall be refused for bringing lands productive of chayroot under cultivation by the plough. As it appeared to the Board that these rules were proposed only as a sequel to the changes recommended in the 6th para., which were not approved, the Board did not consider it necessary to discuss them in their letter of the 25th April 1853.

3. In the report under consideration, however, the collector states as his opinion, that under the restriction now existing, it is very necessary to adopt the above rules.* The first, he observes, would guard the interests both of the ryots and chayroot farmers, because the cultivation of dry grains is always commenced before the monsoon, while the operations of the chayroot seekers do not begin until after the rains have brought the plant to view. The second rule would prevent persons taking up lands productive of chayroot, on pretence of cultivation, and deriving a large profit from the chayroot on payment of a small tax on the land.

4. As the Board do not perceive any objection to these suggestions, they would recommend the same for the sanction of Government, with reference to their remarks on Extract Minutes Consultation, 14th May 1853, and request that it may be granted at an early date.

Revenue Board, Fort St. George.

11 July 1853.

(signed)

B. Cunliffe,
Sub-Secretary.To *B. Cunliffe*, Esq., Sub-Secretary to the Board of Revenue, Fort St. George.

Sir,

In reply to the question contained in Extract from Proceedings of the Board of Revenue, dated 4th June 1853, I have the honour to submit my opinion that for the maintenance of the chayroot farm in this district under the restriction now existing, it is very necessary that the rules recommended in para. 7 of my letter of 19th March last should be adopted.

2. The right of the chayroot renters to enter any inclosed field which shall not have been ploughed and sown before 15th December, should in my opinion be recognised for one month certain, and for any further length of time that the holder of the land may leave the same unploughed and sown.

Tinnevely, Tencausey,

17 June 1853.

(signed)

C. J. Bird,
Collector.

I am I. Under the circumstances represented by the Collector of Tinnevely.

To *B. Cunliffe*, Esq., Sub-Secretary to the Board of Revenue, Fort St. George.

Sir,

With reference to the last para. of Extract from Proceedings of the Board of Revenue, dated 9th June 1853, I beg permission to await the Board's reply to my letter of yesterday, before putting up the chayroot rent again to auction.

(signed)

J. C. Bird,

Tinnevely, Tencausey,

18 June 1853.

Collector.

* From Collector, 19th March 1853, para. 7.

II.
Madras.

(No. 863.)

No. 46.

AGREEABLY to the recommendation of the Board of Revenue, the Right Honourable the Governor in Council sanctions the first of the rules for the protection of the revenue derived from the chayroot farm in Tinnevely, suggested by the collector in para. 7 of his letter to the Board, dated 19th March last. He has some doubt as to the expediency of the second rule, which he apprehends might operate to check cultivation, and would suggest for the consideration of the Board whether cowles might not be given with this proviso, that if the land were left untilled and chayroot taken, an additional assessment would be charged.

(signed) T. Pycroft,
Secretary to Government.

Fort St. George,
26 July 1853.

EXTRACT Fort St. George Revenue Diary to Cons. of 14 October 1853. of 1853

Received the following letter:

(No. 427.)

No. 31.

From B. Cunliffe, Esq., Acting Secretary to the Board of Revenue, to
Sir H. C. Montgomery, Bart., Chief Secretary to Government.

Sir,

In Cons. 1st Aug.
1853.

Para. 1. I AM directed by the Board of Revenue, with reference to Extract Minutes Consultation, dated 26 July 1853, to submit the accompanying letter from the Collector of Tinnevely, on the subject of the chayroot farm.*

To Government,
11th July 1853.

2. While sanctioning one of the rules proposed by the collector and recommended by the Board, Government observed in regard to the other, which had for its object the refusal of cowles for bringing waste lands productive of chayroot into cultivation, that they apprehended it might operate to check cultivation, and suggested for the consideration of the Board "whether cowles might not be given, with the proviso, that if the land were left untilled and chayroot taken, an additional assessment would be charged." The question being referred for the opinion of the collector, that officer states that it would be extremely difficult to fix an extra assessment on any spot of land in proportion to the value of the chayroot taken, and therefore considers that it would be better to omit the rule altogether, and trust to that already sanctioned for the protection of the interests of the chayroot farmers. He also states that the rule objected to does not, on further consideration, appear to him to be very necessary. Under these circumstances, the Board think that the existing arrangements need not be disturbed.

(signed) B. Cunliffe,
Acting Secretary.

Revenue Board Office, Fort St. George,
22d September 1853.

To B. Cunliffe, Esq., Sub-Secretary to the Board of Revenue, Fort St. George.

Sir,

IN reply to Extract from Proceedings of the Board of Revenue, dated 1st instant, on the subject of the observations of Government, regarding my proposed rule not to give cowles in future for bringing waste lands producing chayroot into cultivation, I have the honour to state, that, on further consideration, I am of opinion that the rule which has already been sanctioned by Government, that the chayroot renters shall be free to dig for the root during one month certain at least, in all lands not ploughed and sown by the 15th December in each fusly, renders the one now under consideration not very necessary. And as it would be extremely difficult to fix an extra assessment on any spot of land proportionable to the value of the chayroot that may be in it, I am inclined to the opinion that it will be better to omit the 2d rule, and trust only to the 1st for the protection of the interests of the chayroot farmers.

(signed) C. J. Bird,
Collector.

Tinnevely, Tencausey,
26 August 1853.

(No. 1138.)

No. 32.

UNDER the circumstances represented by the Collector of Tinnevely, the Right Honourable the Governor in Council agrees with the Board of Revenue that the existing arrangements respecting the chayroot farm should not be disturbed.

(signed) T. Pycroft,
Secretary to Government.

Fort St. George,
12 October 1853.

* Dated 26th August, in Cons. 22d September 1853.

Revenue Department, No. 6 of 1847.

(No. 4.)

To the Honourable the Court of Directors of the East India Company.

Honourable Sirs;

WE have the honour to forward copy of a letter from Dr. Wight, Superintendent of cotton farms at Coimbatore, giving cover to one from Mr. Petrie, the engineer, suggesting the propriety of replacing the present driving strap of the gin-house machinery by a shaft and bevel wheels, and to request that your Honourable Court will be pleased to order either the proposed shaft and bevel wheels to be made, or a new leather strap, as may be determined by persons able to judge of the expediency of Mr. Petrie's suggestion, as we have no sufficient means of forming judgment on the point, and ample means are within the reach of your Honourable Court.

Diary to Cons.
9th February 1847.

We have, &c.

(signed) *Tweddale.*

Fort St. George,

5 February 1847.

*Hy. Chamier.**W. Dickinson.*

From Surgeon *R. Wight*, Superintendent Cotton Farms, Coimbatore, to Sir *H. C. Montgomery, Bart.*, Officiating Secretary to Government, Fort St. George.

Sir,

I HAVE the honour herewith to transmit copy of a letter and a plan from Mr. Petrie, suggesting the propriety of replacing the present driving strap of our gin-house machinery by a shaft and bevel wheels. The alteration will certainly effect a great improvement by giving greater uniformity to the motion of our saws, and the certainty of being able to depend on obtaining any required speed, unaffected as it now is, by the slipping of the strap on the smaller pulley. Further, it may be stated that, in addition to that gain we shall effect a great saving in cost, the price of so large and heavy a strap being great in proportion to their durability; whereas the wheel-work once completed, requires no further alteration.

2. Should this suggestion be approved of, it seems desirable that no time should be lost in carrying it into effect before Mr. Petrie leave the establishment, as he being so thoroughly acquainted with the present machinery, is probably better qualified to adjust the new parts than any new man we may chance to get in his place.

3. In sending home the plan, it is desirable that the original, not a copy, be sent, as it is drawn to a scale, the minute accuracy of which a copyist might not see the necessity for correctly preserving in every part.

(signed) *Robt. Wight,*

Coimbatore, 15 January 1846. Surgeon Superintendent Cotton Farms.

From Mr. *James Petrie*, Engineer, Cotton Farms, Coimbatore, to Dr. *Wight*, Superintendent Cotton Farms, Coimbatore.

Sir,

I BEG leave to bring to your notice that the large leather strap for conveying the motion from the moving power to the horizontal shaft from which the gins are driven, having been in constant work for about $2\frac{1}{2}$ years, is now so much worn, that it is time steps were being taken for procuring another to replace it.

2. In place of replacing it by another strap, however, I beg leave to suggest for your consideration the propriety of bringing to the notice of the Most Noble the Governor in Council the advantages of substituting for the strap a shaft and bevel wheels. To explain this more clearly, I have made a drawing representing the present mode of driving, and the suggested alteration which I beg leave to enclose.

3. My reasons for proposing the alterations are, 1st, the strap is not of sufficient power to drive all our gins without a considerable sacrifice of speed, by reason of its slipping on the small pulley or the horizontal shaft; 2d, a strap requiring to be kept at such a great tension will not last above three years, while a shaft and bevel wheels, when properly adjusted, may stand for 30 or 40 years without any further alteration.

II.
Madras.

4. Should the Most Noble the Governor in Council deem the alteration I proposed advisable, I would suggest that the accompanying drawing be sent home by the first mail, with instructions to Mr. Laird, who supplied the machine, to send out the necessary wheels and shafts at the earliest possible period, so that the alteration may be made before I leave the country.

(signed) **James Petrie,**
Coimbatore, 14 January 1847. **Engineer.**

Revenue Department, No. 159.

EXTRACT from the Minutes of Consultation, dated 5 February 1847.

Read the following letter from Surgeon **R. Wight**, Superintendent of Cotton Farms, Coimbatore; forwards copy of a letter and plan from Mr. Petrie, and recommends his suggestion to replace the leather strap of the gin-house by a shaft and bevel wheels.

[Here enter 15 January 1847; No. 97.]

ORDERED, that the foregoing letter be forwarded without delay to the Honourable Court, who are requested to order either the shaft and bevel wheels as proposed by Mr. Petrie, or a new leather strap, as may be determined by persons able to judge of the expediency of Mr. Petrie's suggestion, as the Government has no sufficient means of forming a judgment on the point, and ample means are within the reach of the Honourable Court.

(signed) **J. F. Thomas,**
Chief Secretary.

Revenue Department, 2d June (No. 9) 1847.

Our Governor in Council, at Fort St. George.

WE have given the necessary directions for causing you to be supplied with a shaft and bevel wheels for the gin-house machinery at Coimbatore, on the plan suggested by Mr. Petrie.

We are, &c.
(signed) **H. St. G. Tucker,**
J. L. Lushington,
&c. &c. &c.

London,
2 June 1847.

EXTRACT Revenue Letter from Fort St. George, dated 7 March (No. 17) 1847.

Para. 3. FROM the papers noted in the margin,* your Honourable Court will observe that Dr. Wight has engaged a Mr. Cuxton as his second assistant, on a salary of 100 rupees per mensem, which we approved and sanctioned; and that, on the strong recommendation of that officer, we have also sanctioned the purchase of a 28-saw-gin completed by Mr. Petrie for the sum of 360 rupees. We further sanctioned a disbursement of 654 rupees for flooring the gin-house at Coimbatore with granite.

From Surgeon **R. Wight**, Superintendent Cotton Farms, Coimbatore, to
E. P. Thompson, Esq., Secretary to Government, Fort St. George.

Sir,

I HAVE the honour herewith to transmit copy of a letter from Mr. Petrie, offering for our acceptance a saw-gin which he has just completed entirely at his own cost. This offer is made at my request, the gin being apparently one of the best I have seen. The construction of the saws is somewhat different from any yet tried, but evidently an improvement on that of the original American made saws for our native cotton, and moreover it is full 40 per cent. cheaper than we could have got the same from England. The pressing want of

* Diary to Cons. 1st September 1846, Nos. 8, 9. Diary to Cons. 17th November 1846, Nos. 30, 31, 43, 44. Diary to Cons. 22d December 1846, Nos. 15, 16. Diary to Cons. 5th January 1847, Nos. 50, 51. Diary to Cons. 2d February 1847, Nos. 41, 42. Diary to Cons. 9th February 1847, No. 41.

a gin of its size was my reason for requesting him to let us have it for the gin-house. I therefore trust the Most Noble the Governor in Council will sanction the purchase.

The suggestion contained in the 4th para. of Mr. Petrie's letter is deduced from a careful calculation of the comparative cost of ginning cotton by manual and cattle labour. This much experience of both has enabled us to ascertain, is $21\frac{1}{2}$ per cent. cheaper by the former. Such being the case, and having more work on hand than we can execute within a reasonable time by the cattle gins, it is my intention to act on the suggestion; the more so as small gins worked by hand come better within native means, and are more in accordance with their ideas.

Coimbatore,
28 October 1846.

(signed) *Robt. Wight*, Surgeon,
Superintendent Cotton Farms.

EXTRACT from the Minutes of Consultation, dated 2 February 1847.

Following letter from Surgeon R. Wight, Superintendent of Cotton Farms, to Mr. Petrie, Engineer, to Dr. Wight, Superintendent Cotton Farms, Coimbatore. The suggestion to replace the leather strap of the gin-house by a shaft and wheel.

Sir,
I BEG leave to bring to your notice that our only 25 saw-gin has been in constant work for nearly four years, and is much out of repair.

2. Having no public one to replace it, I beg leave to state that I have a 28 saw-gin just finished, which will fill its place, fitted up with the greatest care. This gin I am willing to make over to the Honourable Company. The saws were ordered by me from England expressly for cotton; and I expect, from the pitch and strength of the teeth, it will prove the best we have yet tried on that description of cotton. I ordered them after we had tried, and set prepared according to the direction of Mr. Simpson, for the same purpose, about two years ago, but which on trial were found to be too long and slender in their form, and defective in pitch.

3. The price of the gin is 360 rupees. Mr. Laird's price for a 25 saw-gin, delivered at Liverpool, is 50 £. and 60 £. delivered in Madras. (See extract from his letter to me in the margin.)*

4. Should the Government decide on purchasing this gin, I propose to set it to work in the gin-house immediately, and to have the other small one repaired and set to work by hand-labour in one of the verandah rooms. The small gin by Jacob Idler, the purchase of which was sanctioned by Government some time ago, might also be worked along with it by hand.

5. We would, with these additions, have a better command of means for ginning, and would get through our own crops of American cotton in good time to commence on the native cotton the next season, or we might even have the hand gins employed on native cotton, while the large ones were at work on the American.

(signed) *James Petrie*,
Engineer.

Coimbatore,
October 1846.

EXTRACT REVENUE LETTER from Fort St. George, dated 7 March (No. 17) 1847.

Will the papers noted in the margin, your Honourable Court will be pleased to consider. Mr. Wight has engaged a Mr. Cuzton as his second assistant on (No. 1175.)

UNDER the strong recommendation of Dr. Wight, conveyed in the foregoing letter, the Governor in Council sanctions the purchase of the 28 saw-gin, made by Mr. Petrie, for the sum of rupees (360) three hundred and sixty.

(signed) *H. C. Montgomery*,
Officiating Secy. to Govt.

Fort St. George,
14 November 1846.

From Surgeon R. Wight, Superintendent Cotton Farms, Coimbatore, to E. P. Thompson, Esq., Secretary to Government, Fort St. George.

Sir,
I HAVE the honour to acknowledge the receipt of Minutes of Consultation (No. 943), under date 16th September 1846, approving of the suggestion I ventured to offer in my letter of the 28th July current, and directing the purchase and thrashing of some churka-cleaned cotton.

2. In Coimbatore, as in Tinnevely, cotton has now become scarce, and what is procurable is

* Extract from a letter from Mr. Laird, of Liverpool, to Mr. Petrie, dated November 30th, 1844: "I would undertake to deliver a 25 saw-gin, made by G. F. & Co., with all the improvements mentioned by you, in Liverpool for 50 £, or in Madras for 60 £."

II.
Madras.

is high priced, though of inferior quality. Under such circumstances, the preferable course seems to be to delay purchasing until the new crop comes in, when we should be able to procure two batches of cotton of nearly uniform quality, but differently prepared, to be sent home by the same ship, and exposed for sale side by side. In this way, I apprehend the relative advantages of the two processes will be subjected to the most rigid test that can be applied. Mr. Finnie might be directed to adopt a similar course at the same time, by which the respective qualities and values of Tinnevely and Coimbatore cottons would be ascertained.

3. Adverting to paragraph 3d of the Minute under consideration, it may be mentioned that the only thrasher now available for carrying out the proposed experiment is the one we have here, and that if the suggestion offered above is approved of two will be required. Mr. Petrie attempted, and to a certain extent succeeded, in making up one for Mr. Owen, of Cochin, considerably cheaper than the original, but, owing to the coarseness and bad quality of the Porto-Novo castings, of so very inferior power, that I cannot, under existing circumstances, recommend his being instructed to fit up a second, the more so, as I think the time required for its completion might be more profitably employed in building spare gins, which are much wanted, and owing to the difficulty of getting good carpenters for the work, this is always a slow process. For these reasons, I think it will be the preferable course to purchase the one offered, both for the sake of present use, and as furnishing a good model by which to make up others when required.

4. So soon as our spare gins are completed, I have it in contemplation to direct Mr. Petrie to make up a second thrasher for our establishment, constructing the plates of malleable, in place of cast iron, which we find too fragile, several of those of our present one having already, from that cause, sustained partial injury; such a machine made up in our stores will not exceed the cost of an American one, and will, I expect, prove more durable.

5. With reference to the purchase of the gin, I beg leave to refer to my letter of the 9th April 1846, recommending the purchase of one of Idler's gins at Bombay to be used as a model for making up others in our stores. This was sanctioned in Minutes of Consultation (No. 445,) under date 18th April 1846, copy of which was immediately sent to the Bombay Government; but has not been acknowledged, whence I apprehend none are now to be had there; but as the delay in replying to my letter may have been owing to the intercourse by sea being at the time closed, I shall again write. In the event of there not being any procurable there, I would then recommend Mr. Finnie's being taken.

6. As the price of neither of these machines is given in Mr. Finnie's letter, I am unable to offer any opinion on that point, but may observe, that I do not think a higher price should be paid for the thrasher than was given for the one we have, namely, 800 rupees.

(signed) *Robt. Wright*, Surgeon,
Supt. Cotton Farms.

Coimbatore,
29 September 1846.

(No. 9.)

To *E. P. Thompson*, Esq., Secretary to Government, Fort St. George.

THE Governor in Council approves and sanctions the suggestions communicated in the above letter, and requests Dr. Wight will arrange for the purchase on account of Government of the machinery offered by Mr. Finnie.

(signed) *H. C. Montgomery*,
Offg. Secy. to Govt.

Fort St. George,
2 January 1847.

To the Secretary to Government, Revenue Department.

Sir,

I HAVE the honour herewith to transmit Mr. Finnie's diary, which he sent to me for perusal, that I might see the suggestion made regarding the machinery and gin-house; and requesting that I would be pleased to comment upon it as I might think fit, and forward it to Government, that no time might be lost in referring to me after the subject had come before the Most Noble the Governor in Council.

With this request I am anxious to comply, but feel the difficulty of not knowing the points on which the information I may be able to supply is most required. I may, however, avail myself of the opportunity thus afforded of correcting an error in regard to the price of the machinery.

Mr. Whitehouse, of Jaffna, to whom it belongs, writes to Mr. Petrie, "I would let my machinery go for the cost and charges. * * * The freight and charges from Liverpool amounted to 30*l.* 19*s.* 4*d.* This must be added to the 155*l.* mentioned by Mr. Finnie. These charges are for the driving machinery alone, without the gins marked in the plan.

On the desirableness of establishing gin-machinery in a situation so favourably situated for testing the comparative value of the two methods of cleaning there can scarcely be two opinions; but as regards the comparative economy of gins worked by cattle power or manual

manual labour our experience in Coimbatore shows that considerable difference may exist. Our gins were worked for three seasons by hand labour, the coolies contracting to gin so many maunds of seed cotton for a certain sum. At the rates agreed upon we have since ascertained that we actually ginned cheaper than we do now with cattle power, and had no establishment of cattle to keep up when we had no work on hand. The case, however, seems different in Tinnevely, where it would appear that for such work coolies are not to be had on any terms; and as I think he is acquainted with the fact I have just stated, presume he would not have applied for the machinery had he not considered it absolutely necessary towards carrying out the objects of the experiment.

Should the Most Noble the Governor in Council coincide in this view, I feel assured the machinery will give satisfaction, as it comes from excellent makers, George Forester & Co., and has the advantage of only requiring a small outlay for its erection.

(signed) Robert Wight,
Supt. Cotton Farms.

Madras,
11 November 1846.

To E. P. Thompson, Esq., Secretary to Government, Fort St. George.

Sir,

With reference to the suggestion contained in my notes of proceedings in the cotton experiment, herewith forwarded, see paras. 8 and 9, I have the honour further to remark, that I think the machinery alluded to is indispensable to the efficient and satisfactory trial of the experiment in which I am engaged, and the opportunity of getting it on the spot at what it cost in England is a great advantage, as it saves time and expense. If the purchase is now sanctioned, we may have it ready for active operations before the cotton season comes on, and if anything can ever be done at all with gins, it is in the way proposed, and at a place like this, where many people are employed in separating the seed from the cotton.

The machinery can move either thrasher or gins, or both when necessary.

(signed) T. J. Finnie,
Cotton Planter.

Camp, Sevacausey,
21 October 1846.

DIARY.

Para. 1. In conformity to the intention expressed in my report of 20th June 1846, I set out about the 1st of July on a kind of exploring and itinerant cotton planting expedition, along the foot of the hills; but to my great surprise and disappointment, instead of finding the fertile valleys watered, as I expected, by the south-west monsoon, as soon as I left the vicinity of Courtallum there was not a spot blessed with rain; all was arid and sterile, until I advanced beyond Pylney, in the Madura district, when I soon arrived on the borders of that part of the Coimbatore district which is fertilised by the rain from the south-west monsoon, which rushes through the Paulghatcherry pass. There is a large area of country that enjoys the benefit of the rain at this season. It was most refreshing to get within the influence of such a climate so immediately after the sultry heat of the Madura district, and then to witness the fertility of the land, itself naturally very poor, but with the aid, directly from the clouds, of that element which nature intended as the greatest blessing to man, it becomes abundantly productive, and renders the scene delightful to the planter. I saw the cotton which Dr. Wight had planted in the part of the country above described; it was then just appearing above ground, and looked well, and I think that if the people themselves would engage in the business, they might make the production of American cotton profitable there. I was glad to find that Dr. Wight agreed with me as to the importance of inducing the people to engage in the matter, and he hopes gradually to do so. I am persuaded, however, that the American cotton will not grow profitably in any part of this country which has not in some degree the benefit of both monsoons.

Para. 2. After a few days spent at Coimbatore and vicinity, I hastened home, and, as per arrangement with Dr. Wight, made diligent inquiries for seed cotton; at that time even there was but little in the country; indeed it does not remain in the seed long after it is gathered, but the seed and fibre is separated immediately, and in order to secure it, the arrangements must be made long before, to have it delivered as soon as gathered. I could then make no positive arrangements, as the Government sanction was required. The Minutes of Consultation, communicating the sanction, came on the 6th September. I hastened immediately into the centre of the cotton district, and dispatched people to find the cotton, if possible; none, however, but the poorest sort was procurable, and I was compelled to give up the hope of aiding this year in complying with the Honourable Court's orders. It is to be regretted I was not sooner informed of the existence of such order, that I might at least have purchased the cotton, and had it stored up, until the gins could be prepared.

Para. 3.—18th Sept. I have erected a gin for the zemindar of Yeliarasainathur, a house having been prepared for it. The gin did not work satisfactorily; the saws did not project far

II. Madras.

far enough through the grates to turn the roll when the cotton was partially taken from the seed. The machines we have here have lost their identity as American gins. This one did but little work, and ran so heavy, that the people refused to turn the wheel after the second day, the work being too heavy for them. They are free, and have a right to work or not, as they choose; but really I think, in such cases, a little coercion would be beneficial to all concerned; for as soon as their muscles, which desuetude has made effeminate, are a little distended, they could well perform the labour required. The case was the same at Ottayapoorum; the gin worked well for a time, with new people every day; but none would continue at it long enough to get accustomed to the work, and the gin soon stopped. The work might be done cheaper by cattle, if we had the necessary machinery.

Para. 4.—25th. I received the Minutes of Consultation, under the date 15th September, authorising the purchase of a quantity of churka-cleaned cotton, to be subjected to the thrasher, in order to separate the dirt from the article. I was afraid that the best cotton was all disposed of, and that none of the first quality then remained in the district; I, however, wrote to the principal merchants to send me samples of their lots. The samples soon came, which were very fair. I hastened to Sevacausey, the great cotton mart, but found, as I feared, that the lots were far inferior to the samples; and being of opinion that, as a specimen of what might be expected from this country, we ought to send the first quality or none at all, I was not disposed to purchase an inferior and dirty article; besides, as soon as it was known that Government was in the market, the price at once rose. I endeavoured to keep it a secret that the cotton was purchased on Government account, but the people were already aware that the funds had been placed at my disposal by the collector, and they imagined that some great financial revolution was about to take place, by which they would reap a large profit; they held up the price of the inferior article to what the superior ought to be purchased at, consequently I have abstained from purchasing, but was and am ready to do so whenever I think it right, for I suppose that Government allows me discretionary powers in the business. To purchase the article offered at the price asked would be folly, and I am not disposed to display such weakness in a business transaction.

Para. 5.—Oct. 8th. I find that now that the people are aware that I have the means and disposition to purchase the article, they are disposed to believe me sincere in my exertions for its improvement, and it gives me much more influence over those who produce it. Many have consented to plant and cultivate a little as I direct; but if the people will work the crop more, even as they plant it, and will gather it nicely, and prepare it for market properly, the object aimed at will be accomplished; but now there really is no inducement for the ryots to take any trouble with their produce; it passes through too many hands for the proceeds of improvement to reach their palm.

Para. 6. As mentioned above, Sevacausey is the centre of an extensive cotton-growing country, and there are many churka cotton-cleaning establishments here. There are little villages scattered thickly around the market town, and I think it most advisable to form a permanent establishment here, as a nucleus for the operations which Government is so desirable to prosecute to a successful issue, or at least to determine if success is attainable.

Para. 7. The gins, though not so expensive as they appeared, in consequence of an error in my first estimates, are still, as worked by hand, subject to the same objection, and indeed, as mentioned above, the people refuse to work constantly at them on any terms. It is much more laborious work than they are accustomed to, and they will not work at them. I made them work when present myself, paying them, of course; but to leave them to themselves, or with any superintendence we can procure, they will not do one-third the work I estimated for each gin, and that fact makes my original estimates about correct.

Para. 8. I am opposed to building fine or expensive houses; but I think a cheap house, with the moving power, such as described in the accompanying sketch, would be of immense advantage; we could use the gin or thrasher, as circumstances required, and then it would give the business a permanence, without which we can never do anything with these people. They know so little of Europeans, that they are afraid we wish to cheat them, even by offering them seed; they cannot understand how it is possible for us to take the trouble of trying to benefit them without some advantage, and as there is no overt advantage professed, they conclude there is a lurking sinister motive in our acts. It is essential that these impressions be removed, and we can only do so by long perseverance, and by affording them demonstrative evidence that we will not only do them justice, but give them an advantage, by encouraging their industry.

Para. 9. A set of machinery, such as here represented, is for sale at Jafna, in Ceylon. It has never been unpacked, and will be sold and delivered on board at the English invoice price, which is £. (155) one hundred and fifty-five pounds. I would respectfully urge that this set of machinery be purchased, and a small gin-house erected in the neighbourhood of this place. As the "engineer for the cotton experiment" is at Coimbatore with suitable people for the work, he could take charge of the work, and erect the house and machinery. Though I make no pretensions to mechanics further than a general amateur knowledge, I can do all such work as this. I have seen so much money uselessly expended in the cotton experiment, often contrary to my advice, that I should not recommend even this, but for the obvious necessity of giving stability to the efforts we are making at a place like this; if it succeeds, the establishment may be let to the people, upon the toll system; if it does not succeed when economically conducted, the matter will be for ever set at rest.

Para. 10. I may add that I think it would be well if indigenous superintendents could be raised up to conduct the business hereafter, at a cheaper rate than Europeans can afford to manage for; the great difficulty is in procuring men on whose judgment reliance may be placed in matters so new to them. During the time I remain in the country I shall be happy to do all I can to instruct such persons as Government may be pleased to place under me, and if I can leave the business in good hands I shall be glad. I shall be extremely sorry to forsake so interesting an enterprise before any conclusion can be arrived at regarding the practicability of preparing the cotton of this country to suit the European market. Indeed, from the signs of the commercial times, unless something is done speedily to improve the quality, in cleanliness at least, there will be no demand for the article from any quarter. The people are so stupid that they will not see the necessity of keeping pace with the improvements of other countries, and it rests with us to take the matter into our own hands, as far as preparing the raw material for market goes. I have represented that the gins worked by men will not pay; let us see if they will not when a simple moving power is applied to them, worked by cattle.

Para. 11. One man commenced planting cotton to-day, and was highly delighted to observe the simple mode of planting recommended, and though at first he did not think it would answer, he now sees the advantage of having the plants regular, instead of, as in their plan, scattered at random over the ground. There has been very little rain. The usual showers at this season have failed this year; a few light showers have lately fallen, but they are partial, and the humidity of the atmosphere is but little increased.

Para. 12.—10th. To-day a man came, to my camp and desired to be allowed to plant a few chains of land, and desired I would permit my people to teach him how to sow the seed, to which I of course readily assented, and the land will be ready on Monday, when the cotton will be planted in anticipation of rain to bring it up.

Para. 13. It appears to me that I am doing so little for Government or the people, that I am sometimes tempted to get land and hire the people to cultivate, merely that I might appear to do a great deal, which would only be in appearance, however, for if I once commenced it, it would be a precedent, and the people would expect me to continue it, which could only be done at an immense sacrifice to Government, and to the great discouragement of the people, for they would look at the expense incurred and proceeds realised, and take fright, and never adopt the course themselves; although I appear now to be doing but little, I think I am laying a foundation upon which the people may build hereafter. The experiment will be tried quietly among and by the people themselves, at no cost to Government further than my superintendence. I hope the plans I have laid down will meet the approbation of the Most Noble the Governor in Council. If not, however, and greater speed with less progress is desired, I can soon plant a few thousand acres, but will not be responsible for the profit and loss.

Para. 14. The people here are very anxious to have good tobacco seed, and have asked me for some, and I have written to the secretary of the Agricultural Society at Calcutta for a supply. I am sorry I did not know that they would be glad of them sooner, but I had heard that tobacco seed, as well as other things, had been given them to no purpose. It is useless to distribute seed, unless you instruct in the management of them at the same time. I happen to know something of the curing process practised in America, and may be of use to the people here. If I can, I shall be happy to do so. There is a large quantity of tobacco produced here, but in consequence of the same seed being used for ages, and an error in the curing process, it is not particularly good. It is in the curing that the flavour is given to tobacco. The people cultivate it beautifully, but spoil it in curing.

Para. 15.—12th. Some days ago I had some samples of cotton, which were very good, from Soobalopoorum and the neighbouring villages, and promised the people to go to their villages to see it, and as enough rain has not fallen to plant cotton, I shall go this evening. The man who commenced planting to-day gave it up because it is too dry. The seed will live a long time in perfectly dry ground, but in ground partially moist they will swell and rot for the want of vital energy sufficient to force the plant above ground. I set off this evening for Soobalopoorum, and rode 15 miles through a fine country, but, till within a few miles of the place, the sub-soil, at a very trifling depth, is a compact calcareous mass, which I do not consider very favourable for agriculture, but does very well for the people who depend upon it. I soon entered upon a tract of country with a much deeper soil. My tent is pitched in a beautiful grove of trees, on a ridge of real gravelly soil, surrounded on all sides by the black cotton soil; the cotton villages being in the neighbourhood. The whole country is thickly studded with little villages, which appear prosperous, and the inhabitants happy.

Para. 16.—13th. Went to the villages to examine the cotton, of which such beautiful samples were sent to me, and the result was a rejection of the whole lot, and a confirmation of the opinion I have long entertained, that no confidence is to be placed in the most solemn assurances of the people of this country. The virtues which characterise the noble mind among us are totally wanting in them; still I like the people; they are what circumstances which they could not control have made them, and I am convinced that a series of years of intercourse with those who dealt plainly and honourably with them would convince them of the value of veracity and honourable dealings.

II.
Madras.

Para. 17.—14th. The rupees and a pair of scales arrived to-day. I think I shall have but little use for either, as I certainly shall not purchase such cotton as this at the price asked. On my own responsibility I have written to Dr. Wight for instructions. In America I could purchase 1,000 bales of cotton in the day and have it all stored away: but here we have to go and pick up a few bundles in one place and a few in another, and then the people imagine that a "Sahib" coming to the district to purchase, he must do so at once, as his expenses are greater than would justify his remaining long; but as I pursue my planting operations, they now begin to find I am in no hurry to purchase. Rode to some villages to examine more cotton, and the result was, as I feared, as hitherto, the cotton was worthless.

Para. 18.—15th. Returned to Sevacausey. Where my tent was there was much thunder and lightning, but no rain; a few miles off, however, it rained heavily. Now at Sevacausey several ryots consented to plant cotton, and I left the writer to teach them; we will have little patches all over the country. The rains are most partial. I have often seen it rain at the distance of a mile off, and not a drop where I was at the time.

Para. 19.—16th and 17th. We have had heavy rain, which I was glad to see; though in camp a rainy day, in the wilds of India, in tents, separated from all social sympathy, is dreary in the extreme, and must be unbearable to those who have not the taste for intellectual enjoyments.

18th. Sunday. Raining still; not heavily.

19th. Ground too wet to plant.

Para. 20.—20th. The people recommence planting to-day, and some new ryots came to say they would also plant a little: no rain.

Para. 21.—21st. Still planting; some of those who promised yesterday to commence this morning have not done so, but say they could not get their ploughs ready, and that they must finish sowing their grain, &c. The cotton crop is quite a secondary consideration with them; the seed might have been sown 15 days ago, and that much time gained, which is a great deal in this country when the rainy season is so short; we may hope to convince the people of that error, and induce them to plant early in the course of a few years.

Para. 22. I have now some greater hopes of doing some good here than I have hitherto entertained, and after one year's operations in purchasing the people's produce they will do almost anything I require of them in the way of a change of mode of cultivation; I therefore hope Government will at once sanction the purchase of the moving power for the gin, and the erection of the house necessary for the purpose of preparing the articles for the English market, whether with the gin or thresher.

Para. 23. I have received a copy of Dr. Wight's letter to Government suggesting the propriety of not purchasing cotton this season, which agrees with my own sentiments, and I shall restore the funds to the Collector's cutcherry.

Para. 24. I may remark that the last I heard of the cotton planted at Courtallam, it was doing well; had commenced to open, but rain was much required to keep it growing; the people, I hear, are pleased with the prospect of its yielding a good crop.

Para. 25. The cotton lately planted here is coming up beautifully, and the people appear to like its appearance much. It certainly looks better in straight rows close together, than if sown scattered over the ground, as is usual in this part of the country.

Para. 26. The nature of the subject is such that I have to enter more into details than, I fear, is agreeable to the Most Noble the Governor in Council, but I know not how to make it intelligible without such details.

(signed) T. J. Finnie.

No. 5.

UNDER the recommendation of Dr. Wight, communicated in the foregoing letter, the Governor in Council approves and sanctions the purchase on account of Government of the set of machinery represented to be for sale at Jaffna in Ceylon, and desires Mr. Finnie will submit a bill of the actual cost for the special sanction of Government.

(signed) H. C. Montgomery,
Fort St. George, Officiating Secretary to Government.

2 January 1847.

No. 276.

From *R. D. Parker*, Esq., Acting Collector, to *J. F. Thomas*, Esq., Chief Secretary to Government, Fort St. George.

Sir,

1. I HAVE the honour to submit the accompanying copy of a correspondence with Mr. Finnie,* American Cotton Planter, and to request sanction to disburse the amount necessary for the construction of the gin-house he proposes to build at Aroopocottah; I request also instructions as to whether I am to consider the erection of gin-houses as among those moderate items of expense for which I am authorised to disburse money on Mr. Finnie's requisition.

2. It would be satisfactory to me to be able to forward with this letter a proper estimate of the cost of the proposed building, which I am inclined to think will exceed Mr. Finnie's calculation; but as the house would appear from Mr. Finnie's letter to be so urgently required, that the delay which will be occasioned by waiting for the preparation of an estimate may be of consequence to that gentleman's operations, I have ventured to make this application without it. I will, however, immediately apply to the civil engineer for an estimate, and forward it to Mr. Finnie for his guidance.

(signed) *R. D. Parker*,
Acting Collector.

Tinnevely, 9 December 1846.

To *R. D. Parker*, Esq., Acting Collector, Tinnevely.

Sir,

THE cotton season is approaching, and as there is no dependence to be placed on the zemindars who have taken gins, and it is obviously important that some conclusion be arrived at regarding the practicableness of rendering the cotton of this country fit for the European market; and as it is impossible to arrive at such conclusion without some economical and accurately conducted experiments in the ginning process, and as we at present have no suitable house for such purposes, I propose to erect one; and as there is no time to be lost, I have the honour to request you will be good enough to grant me permission to draw from the Sattoor treasury from time to time, as the building advances, such small sums as I may require for that purpose.

The house, I think, will not exceed the cost of rupees (1,000) one thousand; but, in consequence of my present inexperience in building in this part of the country, I cannot estimate it accurately; I have asked Captain Horsley to aid me in that respect, and as soon as I can I will send in an estimate for the work.

The size of the house I propose is 68 × 24 feet, separated into three rooms, the two end rooms to be 20 × 20, and the middle one 30 × 20; perhaps I may be able to reduce it in length by 10 feet, but the first room must be large, as the gins at each end creating a counter current of air would materially interfere with each other in a small room.

The gins do not work well when the moving power is on a level with them; I therefore propose to have a rough wooden floor. The wheels which move the gins to be in the lower apartments of the end rooms, and the gins in the upper; the lower middle room to be a go-down for seed cotton, and the upper one a "lint" or gin cotton room.

(signed) *T. J. Finnie*,
Cotton Planter.

Camp, Aroopocottah,
1 December 1846.

To *T. J. Finnie*, Esq., Cotton Planter.

Sir,

IN reply to your letter of the 1st instant, requesting me to authorise you to draw from the Sattoor treasury from time to time, to the extent required to build a gin-house, the cost of which you roughly estimate at 1,000 rupees, I have the honour to state that I construe para. 2 of the Minutes of Consultation of Government of the 24th of February last, strictly to forbid my incurring such a considerable expense, or any expense, for a permanent building without previous sanction, but that I shall be happy to forward your proposal for sanction, if you wish it. I would suggest in this case that you should state the place at which you would recommend the construction of a gin-house, and your reasons for the opinion.

In

* From Mr. Finnie, dated 1st December 1846. To Mr. Finnie, dated 3d December 1846. From Mr. Finnie, dated 7th December 1846.

II.
Madras.

In mentioning the size of the proposed house you have entered 681 x 24 feet. I should suppose that the "681" must be a mistake, probably a clerical error, as this length would be immense, and it does not agree with your detail of rooms. May I request you to let me know what correction I should make in the figures?

Tinnevely, 3 December 1846.

(signed) R. D. Parker,
Acting Collector.

To R. D. Parker, Esq., Acting Collector, Tinnevely.

Sir,

I HAVE the honour to acknowledge the receipt of your letter, No. 945, under date 3d instant, referring to the 2d para. of the Minutes of Consultation, under date 24th February 1846, which you "consider forbids you incurring any considerable expense, or any expense, for a permanent building, without the previous sanction of Government."

2. It was the liberal construction I put on that para. which induced me to apply to you for funds without reference to Government. Surely rupees (1,000) one thousand cannot be properly called a "large expense" under any circumstances, and when the results of an experiment to which some importance is attached is considered, I think it is a particularly trifling sum, and my course has been such that I am sure Government cannot consider me extravagant or disposed to expend money unnecessarily; and it is only with a hope of soon deciding the practicableness or impracticableness of rendering the cotton of this country more fit for the European market, that I make the proposition at all. It is obviously important that some decision be arrived at upon the subject. For six years expensive operations have been conducted, and, strange as it may appear, nothing is known up to this time as to the cost in reference to the enhanced value of the article, and my object in erecting the gin-house is to arrive at some satisfactory conclusion for the information of Government and the public, as well as for my own satisfaction. If I find that anything can be done, I shall be willing to prosecute the business with all the zeal and energy I possess; but if I find that the thing is impracticable, then I shall let Government and the world know it, and myself cease to act in so unsatisfactory a business.

3. A reference regarding a gin-house and moving machinery is now before Government. Whether the purchase of the machinery is sanctioned or not, the house must be, if it is intended to do anything at all with the gins; and the house I propose will be adapted for the application of machinery if it is subsequently required; and I am so well satisfied that Government will approve of the plan, that I shall contract for the brick, &c. at my own risk, that the time which is now short to the commencement of the gathering season may not pass unimproved. I shall be obliged to you, therefore, if you will give me authority to draw rupees (200) two hundred from Sattoor Tahsildar.

4. I think that Aroopocottah is the best place I have seen for the site of the gin-house, as it is in the centre of the best cotton district, and is a large mart for the article.

5. I shall enter fully into the details of my plan of operations in a letter direct to Government, a copy of which I shall send you, that you may be kept informed of my proceedings. In the meantime, I shall feel obliged if you will forward my application, and the grounds on which it is made, to Government.

6. Be so good as to erase the unit from the length of the house, that it may be reduced to the more reasonable length of 68 feet, instead of "681," an error for which I cannot account, as the letter book exhibits the correct dimension.

(signed) T. J. Finnie,
Cotton Planter.

Camp, Virdooputty,

7 December 1846.

REVENUE DEPARTMENT.

(No. 29.)

EXTRACT from the Minutes of Consultation, under date the 7th January 1847.

Read the following letter from the Acting Collector, of Tinnevely, submitting copy of a correspondence with Mr. Finnie, and requesting sanction for the disbursement of the amount necessary for the construction of a gin-house he proposes to build at Aroopocottah.
(Here enter 9th December 1846, No. 276.)

1. THE Governor in Council resolves to transmit the foregoing correspondence to Dr. Wight with directions, that if he should consider a gin-house at Aroopocottah desirable, he will at once instruct Mr. Finnie to proceed in communication with the acting collector of Tinnevely and the civil engineer of the division, with the construction of the building.

2. Considering the large quantity of cotton ordered by the Honourable Court of Directors, the outlay of a thousand rupees for a gin-house would seem neither unadvisable nor

nor too large for the occasion, but it is nevertheless essential that in the construction of all permanent buildings on account of Government, the probable cost should, in the first instance, be properly ascertained. The Governor in Council desires, therefore, that the acting collector will require the Civil Engineer to furnish an estimate for the sanction of Government.

(signed) **H. C. Montgomery,**
Officiating Secretary to Government.

Parker, Esq., Acting Collector, Tinnevely.

REVENUE DEPARTMENT.

From Surgeon **R. Wight**, Superintendent Cotton Farms, Coimbatore, to the Secretary to Government, Fort St. George.

Sir,
ADVERTING to Minutes of Consultation, No. 1088, under date 2d November 1846, para. 2d, referring some observations of Mr. Finnie on ginning cotton for such remarks as I may desire to offer on the relative advantage of employing the gin and thrasher in the cleaning and preparation of native cotton.

2. I have read the extracts from Mr. Finnie's letter with much care, but either do not quite clearly follow his reasoning, or at all events I do not feel satisfied of its correctness. The relative advantage of employing the churka, or the gin and thrasher, in the cleaning of native cotton, is a question still *sub judice*, and for the solution of which the Court's requisition for 6,000 bales of gin-cleaned cotton, and for 600 of churka-cleaned and thrashed cotton, to be sold in the English market, against so much native cleaned cotton, which has not undergone either process, is now in course of completion. The relative cost of the two methods is not now, I apprehend, the point under discussion, but to ascertain whether the quality or marketable value of the article is or is not enhanced by gin-cleaning. If the marketable value is enhanced by its being gin-cleaned, the question of cost can then be taken into consideration, but not until then. For example, if it turns out that the market value of gin-cleaned cotton is 1*d.* per pound higher than if churka-cleaned, it follows that the merchant can afford to pay four rupees a candy higher for it, and still realise one and a quarter rupee higher profit than if churka-cleaned, whatever may be the cost of churka-cleaning. Should it turn out on the other hand that the gin deteriorates the quality by injuring the staple, or otherwise lowers its market value, then it equally follows that no one would employ the gin, though he could thereby clean his cotton at half the price, knowing well that even so small a difference as half a farthing per pound amounts to nearly *Rs.* 2. 10. per candy.

3. When this question is answered by the sale of 5,000 or 6,000 bales of gin-cleaned Indian cotton, and the result compared with the average obtained from churka-cleaned cotton of the same description, we are then in a condition to enter upon the consideration of Mr. Finnie's elaborate calculations, but not till then. On the average I believe the gin is the cheaper machine of the two, but the difference is inconsiderable, and unless compensated by the higher price which ginned cotton may realise in the market, the cost of machinery will nearly, if not fully, absorb the saving, even assuming that in place of three months the gins are kept working the whole year, to which I can discover no possible objection. Ours never stop so long as we have cotton to gin.

Coimbatore, (signed) **Robert Wight**, Surgeon,
7 December 1846. Superintendent Cotton Farms.

P.S.—I append copy of a letter addressed to me by Mr. Petrie, containing further remarks on the same minute.

REVENUE DEPARTMENT.

From Mr. **James Petrie**, Engineer, to Dr. **R. Wight**, Superintendent Cotton Farms, Coimbatore.

Sir,

In obedience to the orders of Government, in Minutes of Council dated 2 November 1846, I have the honour to state that I have carefully perused Mr. Finnie's letter to Government, dated 28 August 1846, and, as directed, beg to state my opinion generally on the relative advantage of employing the gin or the thrasher in the cleaning and preparation of native cotton.

2. Mr. Finnie, in para. 3 of his letter, "is afraid that the introduction of the gin will be of small advantage to India compared to what it was in America; first, because the population is so great and labour so cheap in India, and, secondly, on account of the time it would take to change the habits and modes of the people."

3. In paras. 4 and 5, he recommends the Government to continue the use of the machine, in the hope that the people will gradually discover its advantages, and generally adopt it;

II.
Madras.

but, towards the end of para. 5, he expresses his fears that the people will not adopt the gin until they are all so well employed that they cannot afford time to churka their cotton.

4. I am disposed to take a simpler view of the question than Mr. Finnie does, and to consider that the introduction of the gin into India depends entirely on the opinion of the manufacturer at home may form of ginned "East India cotton." If they report favourably, and give a higher price for the ginned article, the gin will force its way into the country in the same way that machinery for shortening the labour for doing the work cheaper, or for doing it better, has forced its way into all other countries, even although it should be a temporary hardship to great masses of the people. That, however, seems a remote contingency; our present knowledge is too imperfect to admit of a proper conclusion being drawn in the matter. Between the market value of cotton as it comes from the churka, and the same after it has been subject to the operation of the thrasher, we have as yet no data on which to form an opinion, and cannot have until several hundred bales which has undergone that process have been reported on by the spinner, when the profit and loss of thrashing will be determined. The loss in weight on a candy of moderately clean churka cotton, being passed through the thrasher is about 10 lbs., thereby increasing the cost of the thrashed cotton about 12 annas per candy.

5. Mr. Finnie's statement of the prices of the raw material in Tinnevely is considerably at variance with our experience here; in para. 5 of his letter, he says, "The people will not let us have their cotton unless we pay a price for it that would enable them to make just as much without the labour of separating the seed as they would realise if they performed the labour. I shall give the statement of the present prices of cotton with the seed in it, and of both articles after the labour of separating the seed has been performed."

The quantity of seed cotton required to produce a candy of lint or clean cotton is 82 maunds; 82 maunds at 7 rupees 10 maunds is Rs. 57. 6. 4.

From this statement it will be seen that there is Rs. 6. 2. added to the cost value of articles by the labour that has been performed.

6. In the calculation in para. 6, as to the number of gins that would be required to clean the whole crop of Tinnevely cotton, three months are stated as the ginning season, and four times the number of gins are therefore required to complete the work in that time that would be required if the gins were at work at all seasons, as ours are.

Coimbatore, 7 December 1846.

(signed) J. Petrie,
Engineer.

(No. 38.)

THE Governor in Council sees nothing in the above communication materially affecting Mr. Finnie's views, though he concurs with Dr. Wight, that no definite conclusion can be arrived at until the result of the sales in the English market of cotton cleaned by the two modes adverted to is known.

(signed) H. C. Montgomery,
Fort St. George, 8 January 1847. Officiating Secretary to Government.

To Sir Henry C. Montgomery, Bart, Officiating Secretary to Government, Fort St. George.

Sir,

1. WITH reference to the remarks in the 8th and 9th paras. of my diary, and the letter accompanying it, under date 21 October, I beg to remark, that whether the machinery therein alluded to is purchased by Government or not, we shall require a gin-house in which to work the machines, in order to enable us to arrive at some decisive data upon the subject of ginning cotton with the hand instrument.

2. The zemindars who took gins do not attend to the business strictly, but commit the work to some of their numerous dependents, who, ever ready to avail themselves of any opportunity afforded for speculation, take good care to benefit by the introduction of anything new, the cost of working which is not universally known, by charging the amount appropriated to their private use to the machine, which renders the work so expensive as to absorb all the profits, however great, which might accrue from it if properly managed. There are, I find, cotton brokers in all the large towns in the best cotton districts, whose business is to purchase seed cotton, and, after separating the seed from the fibre, sell both separate. These men, of course, look after their own affairs, as their profits are derived from their own labour

	Rs. a. p.
* One candy of lint or clean cotton costs - - - - -	43 8 -
Sixty maunds of seed, the quantity obtained from 82 maunds of seed cotton, is - - -	20 - -
	Rs. 63 8 -

labour or mercantile transactions. It must, consequently, be our object to induce the class of people whose business it is to adopt this mode of separating the seed from the fibre; but we must first prove it practicable by some economically conducted experiments, which will convince them that an advantage is to be derived by the adoption of the machinery.

3. I therefore propose to erect a cheap gin-house, which is to be about 78 feet long by 24 broad, including walls, forming three rooms, one at each end, 20×20 for the gins, and one in the centre, 30×20 , for the "lint," or ginned cotton room. Four gins and two threshers can be worked in it, two gins and a thresher at each end. As the gins do not work well when on a level with the moving power, a rough wooden floor will be necessary. The two lower end rooms to contain the wheels and people who turn them; the gins to be in the upper end rooms, discharging the cotton into the upper centre room, while the lower centre room is to be a godown for seed cotton, all under one roof. The cost of this house I roughly estimate at (1,000) one thousand rupees. It will be suited for the application of machinery worked by cattle, if this be subsequently found preferable to hand labour.

4. I think too much importance cannot be attached to the efficiency of the gin. To make a trial in the presence of these sharp-sighted people, when annas and pies are considered, with an inefficient instrument, will at once create an unfavourable impression, which the most distinguished subsequent success cannot remove, or after exertions eradicate from their minds. I have already represented that the gins which I have here as so heavy in gear as to require so many people that the expense is greater than the work done by them will justify; this defect ought to be remedied, and I am sure Mr. Petrie, with the experience now acquired, will improve them much. I am in favour of the hand-gin system, if the machines are made suitable for the application of animal labour as the moving power. I think that gins of 10 or 12 saws, which the people could work easily, and in their own houses, would be much better suited to this country than large ones, requiring expensive houses and numerous labourers; but whether gins of any kind will prove an advantage or not is yet to be ascertained; and it is with that view I propose the erection of a house which will be a nucleus around which to extend the operations which experience may suggest for the accomplishment of the object in view.* The house, with the gins, we must induce some native, or other large cotton dealers, to take at a fair rent, for the purpose of separating the seed from their cotton, or on hire for others. Government orders of course being fulfilled punctually. I shall keep charge of the house, so far as to see that the machinery is kept in order. This I think is the best way to test the practical use of the machinery. If the people engaged in the business can make a profit by it they will doubtless adopt them extensively; if they cannot make it profitable, it is clear we cannot.

5. Government has conducted operations for six years for the improvement of the cotton of this country, and for the purpose of ascertaining how far it may be rendered more suitable for the British market by greater care in regard to cleanliness, whether from more care in the gathering process, or after application of machinery, to separate the extraneous substances from the article. But as far as I am aware, no results up to this time have been arrived at, no data to enable us to decide as to the relative advantage to be derived from continuing the operations. Shipments have been made frequently, which I have casually heard have sold well; but no statement has ever been drawn up for the information of those most interested, and most likely to prosecute a profitable trade, the merchants. This has arisen mainly from the circumstance of accident or caprice having induced frequent changes in the management of the business, so that no one individual has ever commenced and concluded an experiment satisfactorily, from the fact that everything had to pass through many hands and offices, all adding to the expense; and it being a Government concern no pains are taken to lessen the charges, which, together with an account of sales, are never communicated to the department or individual who made the investments; the consequence is, we are as ignorant now of what may be done as we were before the experiment was commenced. The course now pursued by Dr. Wight will give some decisive data for the Coimbatore district; I propose the same for Tinnevely. The delay on the part of Government in issuing orders regarding what is to be done is a great hindrance. I earnestly hope Government will be pleased to inform me what I am to do, that I may be ready to act at the most propitious moment during the approaching cotton season. To a business man nothing is so unsatisfactory as not to see the beneficial results of his labour. If cotton is to be purchased let me know it in time, and it shall be done to the best advantage.

6. I thank Government most sincerely for the sanction of the agency I propose. The merchants of Madras and Ceylon have their own agents here, and I must look to other cotton-trading ports for the indispensable co-operation which I anticipated from those connected with the trade. The season is so near at hand that I fear I may not be able to establish a business connexion which will enable me to accomplish much by the agency this year; but if Government is disposed to comply with the following proposition I shall prosecute the trade with alacrity, and endeavour to prove that it may be done with advantage.

8 21

* I shall not venture to express an opinion, as remarked in my diary; it is not opinions which Government or those interested require, but demonstrative results.

II.
Madras.

advantage by others. There can be no great risk in the investment, for the article possesses an intrinsic value.

7. The proposition is as follows, viz., erect the proposed house, and place in it all the necessary machinery for preparing the cotton, and place at my disposal such a sum of money as Government may think proper to be invested in cotton and shipped to England, to the care of some respectable mercantile house, to be sold, and the account of sales rendered to me direct, with a duplicate for the Government here, that I may be in possession of every item of expense, to enable me to draw up an annual statement of the result as to profit and loss, for the information of Government and others interested. I, of course, will use all diligence to make the venture profitable. Two or three years' operations in this way will do more to decide the practicableness or impracticableness of rendering the cotton of this country better suited to the British market than Government operations, as hitherto conducted, can ever arrive at.

8. I propose the erection of the house on as cheap a scale as possible, consistent with efficiency, and the suggested mode of procedure in regard to the purchase of cotton, because I think it the best means of arriving at a satisfactory conclusion upon a subject which is considered so important. I hope the Most Noble the Governor in Council will be pleased to take the matter into consideration, and let me know the result as soon as convenient, that I may be prepared for the work to be done. Active operations, I am sure, will more than anything else influence the people effecting the desired improvement.

9. As the originator of the enterprise in which I am engaged, I naturally feel a deep interest in its success. As the first to engage in it, I am willing to be the last, to forsake it. All the planters in Bombay have resigned, and leave for America during the first three months of 1847.* Government, by sanctioning the agency I proposed, has manifested every disposition to facilitate the progress of the enterprise, and I will not now think of leaving it until the matter is decided one way or the other, and I shall exert my best efforts, with the means placed at my disposal, to decide it favourably; and have suggested the course which I think best suited to lead us to the desired data, but will pursue whatever course Government is pleased to adopt.

10. I may remark, in conclusion, that I think Aroopocotta, on the border of the Madura district, is the best place for the gin-house, being the centre of the best, as well as the most extensive, cotton region, embracing part of Madura, and part of Tinnevely districts.

11. Permit me to remark further, that if Government will let me have money without interest, on the security of Government paper, I am willing to prepare and ship cotton to the amount of rupees (30,000) thirty thousand on my own account, and report the result for the information of Government. This course will decide whether or not those now acting as agents on the spot, and possessing the same facilities that I do, by their connexion with mercantile houses, can prosecute the trade with advantage.

(signed) T. J. Finnie
Camp, Palamcottah, Cotton Planter.

16 December 1846.

EXTRACT from Mr. Finnie's Diary, 22 November 1846.

6. "Aroopocotta is a large village, and an extensive trade is conducted here in cotton. There are upwards of 100 houses for cleaning cotton with the churka, and I like the place much, situated as it is in the centre of the cotton district, and think no better situation can be found for proving the practicableness or impracticableness of superseding the churka by the introduction of the gin. I shall not express an opinion, as it is not opinions Government or those interested in the cotton trade require, but demonstrative results, and such we can only arrive at by actual operations; and on that account, and with the hope of arriving at some conclusive data on the subject, I have recommended the erection of a gin-house. Whether the gins are worked by cattle, machinery, or manual labour, we shall require a house, as we have no place at present to work the machines in."

REVENUE DEPARTMENT.

From Surgeon R. Wight, Superintendent Cotton Farms, Coimbatore, to Sir H. C. Montgomery, Bart., Officiating Secretary to Government, Fort St. George.

I HAVE the honour herewith to transmit copy of a letter from Mr. Finnie, with reference to Minutes of Consultation, No. 5, under date 2d January current.

* Since this was written I have learned that Mr. Mercer has been induced to remain, by an appointment, as superintendent to the Broach Cotton Plantation, with the privileges of establishing an agency in connexion with the cotton-ginning establishment. A year's leave to visit home is granted to him.

2. As the communication to which it gives cover, copy of his letter to Government, dated 13th instant, is sent expressly for the purpose of giving me an opportunity of offering "any remarks I may think proper," I avail myself of the permission to state that I take a totally different view of the matter from that advanced by Mr. Finnie; first, because I think Government has already been induced, on his representations, to advance so far in it as scarcely to admit of its now either stopping short or retracing its steps; and secondly, because I think it would be injudicious to do so if it could.

3. On the receipt of Minutes of Consultation, authorising the purchase of Mr. Whitehouse's machinery, Mr. Petrie, to whom he had in the first instance given the plans, and made known his wish to part with it, asked my permission to send him a copy, which I, of course, at once granted, never for an instant supposing that Mr. Finnie could make such a proposal as that contained in his letter, so that Mr. Whitehouse is already fully apprised of the purchase having been completed.

4. But admitting that Government could, with the most perfect propriety, act on Mr. Finnie's present recommendation, I should still question the soundness of his views or the accuracy of his information in making such a proposal. Had the machinery in question still to be ordered from England, I should not have thought of advising its being ordered. But now that we have got it, neither can I advise our relinquishing the purchase until the fullest use has been made of it towards ascertaining the relative values of Indian cotton cleaned by the American gin and the native churka in the English market.

5. To prevent any misconception as to the quantity of work a gin can execute in a given time, I may mention, that with our present ginning establishment in Coimbatore we can only clean about 50 bales a month, or 600 a year. Mr. Finnie has now three hand gins, and a fourth will soon be sent. Supposing all four working to the best advantage with double or relay sets of coolies, as we did for two years, he could not turn out more than an equal quantity. Thus between the two establishments, with our present means kept in constant work, we cannot clean more than 1,200 bales annually, at which rate five years will be required to complete the Court's order for 6,000 bales. But even that quantity of purchased cotton is more than we can supply from this establishment, as the cleaning of our own crops usually keeps our gins employed from three to four months.

6. Should the cotton crops of the current season turn out well, and our purchases be large, which, judging from present appearances, is most problematically, it is my intention to work as many hand gins as I can complete and find places for, to aid those working by cattle power; and, for the same reasons, would advise the Ceylon machinery being got ready with the utmost despatch, and so fitted up as to work two 60 saw gins (which can be made up here), driven by cattle power at one end of the lint room, while three or four hand ones are working at the other.

7. Private accounts received by the last mail from Mr. Laird, comprising statements of the sales of all the Indian gin-cleaned cotton yet effected in Liverpool, show that on the average ginned cotton realises higher prices by about a farthing per pound than when churka-cleaned. This is my reason for urging on ginning operations to the utmost in our power.

8. I append copy of my letter to the acting collector of Tinnevely, in reply to Minutes of Consultation, No. 29, under date 7th January 1847, and shall transmit copy of this letter to Mr. Finnie.

Coimbatore, 18 January 1847.

(signed) Robert Wight, Surgeon,
Superintendent Cotton Farms.

From T. J. Finnie, Esq., Cotton Planter, Tinnevely, to Surgeon R. Wight, Superintendent Cotton Farms, Coimbatore.

Sir, I HAVE the honour to acknowledge the receipt of your letter, under date 7th instant, enclosing extracts, Nos. 5 and 9, from Minutes of Consultation under date 2d January. The former of those extracts I had the honour to receive direct, and have written to Government on the subject, and I herewith forward you the letter for any remarks you think proper to make. It now appears to me that I shall be able to work the gins by manual labour better than at first appeared possible, and as the suggestion for the purchase of the machinery under consideration originated with me, and involves a considerable outlay, I cannot conscientiously act upon the orders of Government to purchase it until I am further satisfied that it is indispensable.

2. Regarding the extract No. 9 from the Minutes of Consultation, I have the honour to remark that I have ordered the gin from Calcutta, but must disclaim all interest in the transaction, as it is not, nor ever was mine; I merely recommended its purchase because I thought it would be useful.

3. I have written to my agents for a statement of the exact cost of the thresher; when it comes I shall forward it to you.

Camp, Verdooputty, (signed) T. J. Finnie.

13 January 1847.

H.
Madras.

From Surgeon *R. Wight*, Superintendent Cotton Farms, Coimbatore, to *R. D. Parker*, Esq.,
Acting Collector, Tinnevely.

Sir, I AM in receipt of Minutes of Consultation, No. 29, under date the 7th January, enclosing copy of correspondence between yourself and Mr. Finnie on the subject of a gin-house at Aroopocotta, regarding which I am directed, should I deem it desirable, at once to instruct Mr. Finnie to proceed with it in communication with yourself and the Civil Engineer.

2. In reply to this I have the honour to state, first, that the machinery is already purchased, and that until a house is prepared for its accommodation it is useless; and, secondly, that as Mr. Finnie, with ample local knowledge, which I have not, has selected Aroopocotta as being the most appropriate site, I am unable to suggest a better.

3. As regards the plan of the house he proposes to erect, so far, as yet explained, I confess I have some misgiving. He proposes to work a set of gins at each end, but does not say whether both sets are to be moved by machinery, or one set by cattle power, the other by manual labour. If the latter is the object in view, then the plan of the house is most appropriate, but if the former his machinery cannot be adapted to execute the work expected, as will be seen from an examination of the accompanying plan of his machinery. I would therefore suggest that it might be a judicious course for him to reconsider the subject in communication with the Civil Engineer, with the plan of the machinery before them, to make sure that no mistake happens in the adaptation of the building to the machinery, which we have here had but too much reason to know can never afterwards be fully compensated for.

4. Mr. Finnie in his first letter lays considerable stress on the importance of having the moving power below the level of the gin to be driven. The arrangement sketched in the accompanying plan completely meets his views on this point, which is so far fortunate. I may, however, take advantage of the opportunity which the remark offers, to mention that in Coimbatore we have tried both ways to a great extent, and, the gins being properly fixed, are satisfied that the one possesses no advantage over the other, provided the conductor of motion from the moving power is adjusted with equal precision in both cases. I do not mention this with any view to alter or interfere with that part of Mr. Finnie's plan, but simply for the purpose of communicating information that may possibly be found useful in the course of erecting and putting in motion the machinery purchased and now about to be fitted up for work.

(signed) *R. Wight*, Surgeon,
Coimbatore, 12 January 1847. Superintendent Cotton Farms.

Revenue Department, No. 183.

EXTRACT from the Minutes of Consultation, under date the 8th February 1847.

Read the following letters:

From Mr. *T. J. Finnie*, Cotton Planter, Tinnevely.

[Here enter 16 December 1846, No. 1429.]

From Surgeon *R. Wight*, Superintendent Cotton Farms, Coimbatore.

[Here enter 18 January 1847, No. 109.]

The Most Noble the Governor in Council observes, that under the instructions conveyed in the Extract from the Minutes of Consultation, dated 7th January 1847, No. 29, the gin-house at Aroopocottah is to be proceeded with, and no further orders on the subject are therefore required at present.

His Lordship in Council is unable to accede to Mr. Finnie's further proposition for a Government advance to him of money for the purchase of cotton on his own account.

(signed) *H. C. Montgomery*,
Secretary to Government.

From Surgeon *R. Wight*, Superintendent Cotton Farms, Coimbatore, to Sir *H. C. Montgomery*, Bart., Officiating Secretary to Government, Fort St. George.

Sir,

ADVERTING to my letter, dated 18th January last, transmitting copy of one from Mr. Finnie to my address, dated the 13th, I have the honour to state that his letter gave cover to an original one addressed to you. This circumstance I overlooked, and supposing it a copy, dictated my letter accordingly. Mr. Finnie has, in a letter received this morning, pointed out the oversight, which I hasten to correct by transmitting herewith his original letter, retaining a copy in this office.

Coimbatore, 5 February 1847.

(signed) *R. Wight*, Surgeon,
Superintendent Cotton Farms.

To Sir Henry C. Montgomery, Bart., Officiating Secretary to Government, Fort St. George.

Sir,

1. I HAVE the honour to acknowledge the receipt of an Extract from the Minutes of Consultation, No. 5, under date 2d January, authorising the purchase of the set of machinery which I recommended to be used as a driving power for the gins.

2. I beg to remark, that since I recommended the purchase of that machinery, I have given the subject of arranging and driving gins by manual power much careful study, and I have come to the conclusion that by some alterations in the gins to lessen the friction, I shall be able to make arrangements for driving them by means more on a level with native capacity for managing them, thereby dispensing with a large original outlay, and instituting equally efficient, and I hope less expensive operations; I therefore request permission to let the sanction for the purchase of the machinery lay over for the present, until I satisfy myself further as to the practicableness or otherwise of confining ourselves to the more simple mode of procedure.

3. This arrangement will not lose much of my time, for the house is not yet even sanctioned, and should it even be complete before the machinery is ordered from Jaffna, we can proceed with the ginning by hand while it is being erected, should I finally decide on its purchase; and should we be able to dispense with it altogether by the adoption of means more suitable to the capacity of the people, a great saving will be effected, and an object more simply accomplished.

4. I beg to be distinctly understood merely to hold in reserve the permission to purchase the machinery until it appears to me more essential than it seems to be at present. But when I find it to be indispensable, I shall act upon the order of Government with alacrity.

(signed) T. J. Finnie,
Camp, Verdooputty, Cotton Planter.
13 January 1847.

(No. 276.)

REFERRING to the letter from Mr. Finnie, dated 13th January 1847, which accompanied the above letter, the Most Noble the Governor in Council resolves to direct the acting Collector of Tinnevely to ascertain whether the machinery from Jaffna has been purchased, and if not, that he will not conclude the purchase for the present.

Fort St. George,
26 February 1847.

(signed) H. C. Montgomery,
Officiating Secretary to Government.

(No. 34.)

From R. D. Parker, Esq., Acting Collector, to J. F. Thomas, Esq., Chief Secretary to Government, Fort St. George.

Sir,

Para. 1. WITH reference to the Extract from the Minutes of Consultation, dated the 7th ultimo, I have the honour to forward an estimate prepared by the civil engineer of the probable cost of the gin-house proposed by Mr. Finnie, cotton planter, to be erected at Arcopocottah, amounting to Rs. 2,431. 13., for which I request the favour of your obtaining the sanction of Government.

2. As Mr. Finnie wishes to have the gin-house erected at an early period in time to receive the produce of the approaching cotton crops, I have advanced him 200 rupees to enable him to commence operations, which I trust will meet with the approbation of Government.

Tinnevely, 12 February 1847.

(signed) R. D. Parker,
Acting Collector.

Revenue Department, No. 280.

EXTRACT from the Minutes of Consultation, under date the 26th February 1847.

Read the following letter from the Acting Collector of Tinnevely, forwarding for the sanction of Government an estimate prepared by the civil engineer of the cost of the gin-house proposed by Mr. Finnie, cotton planter, to be erected at Aroopocottah.

[Here enter 12th February 1847, No. 34.]

The Most Noble the Governor in Council observes, from the Diary which accompanied Mr. Finnie's letter, dated 21st October 1846, that he proposes having a "cheap house

II
Madras.

with the moving power,"* accommodated in some measure to the machinery at Jaffna, the purchase of which he recommended to Government, and on the assurance that the building "will not exceed the cost of rupees (1,000) one thousand," the construction was ordered to be proceeded with.

In Dr. Wight's,
5th February 1847,
No. 239.

It appears from the letter to the collector of Tinnevely, dated 12th January 1847, that Dr. Wight has some misgiving as to the plan of the gin-house proposed to be built; and Mr. Finnie, by his letter to Government, dated 13th of the same month, is undecided as to the purchase of the machinery. The communication now before Government estimates the cost of the building at Rs. 2,431. 13. His Lordship in Council has no intention of sanctioning a disbursement so greatly exceeding Mr. Finnie's calculations, and he resolves in directing an intimation to this effect to be made, that Mr. Finnie be also instructed not to proceed with the building until he shall, upon mature deliberation, have determined whether the machinery from Jaffna shall be purchased, and the description of gin-house best suited for the purposes in view.

His Lordship in Council desires that all communications from Mr. Finnie be in future submitted to Government through the collector of Tinnevely, who will accompany them with his opinions and suggestions.

(signed) **H. C. Montgomery,**
Officiating Secretary to Government.

REVENUE DEPARTMENT.

From Surgeon **R. Wight**, Superintendent Cotton Farms, Coimbatore, to Sir **H. C. Montgomery**, Bart., Officiating Secretary to Government, Fort St. George.

Sir,

In accordance with the instructions conveyed in the Extract Minutes of Consultation No. 9, under date 2d January 1847, I have the honour to report for the information of the Most Noble the Governor in Council, that I have arranged for the thrasher offered by Mr. Finnie, and herewith transmit his bill of costs, amounting to rupees eight hundred and twenty-six, annas three, and pie eight.

Rs. 826 3. 8.

2. In my letter of the 29th September 1846, I suggested that the machine should not cost over 800 rupees, the amount paid for one purchased from Mr. Wroughton. The present exceeds that sum by 26 rupees, which I believe is accounted for by Mr. Wroughton having obtained a remission of the import duty, whence it appears the bill does not quite amount to the sum specified in my letter. Subjoined is a copy of his letter transmitting the vouchers.

Coimbatore, 12 March 1847.

(signed) **Robert Wight**, Surgeon,
Superintendent Cotton Farms.

To Surgeon **R. Wight**, Superintendent Cotton Farms, Coimbatore.

Sir,

I HAVE the honour to acknowledge the receipt of your letter, under date 7th January 1847, and in compliance with your request, I now submit a bill of cost and charges amounting in the aggregate to the sum of Rs. 826. 3 a. 8 p. The gin has not arrived from Calcutta.

Camp, Aroopocottah,

2 March 1847.

(signed) **Thomas James Finnie**,
Cotton Planter.

(No. 383.)

THE Most Noble the Governor in Council sanctions the bill submitted by Dr. Wight, with the foregoing letter for the purchase of a cotton thrasher from Mr. Finnie, amounting to rupees (826. 3. 8.) eight hundred and twenty-six, annas three, and pies eight.

Fort St. George,

22 March 1847.

(signed) **H. C. Montgomery**,
Officiating Secretary to Government.

* In Dr. Wight's, 11th November 1846; in Cons. 5th January 1847.

† In Tinnevely Collector's, 9th December 1846; Cons. 12th January 1847.

‡ In Dr. Wight's, 18th January; in Cons. 9th February 1847.

(No. 66.)

From *R. D. Parker, Esq., Acting Collector*, to *J. F. Thomas, Esq., Chief Secretary*
to Government, Fort St. George.

Sir,

Para. 1. WITH reference to the Minutes of Consultation of Government under date the 26th ultimo, Nos. 276 and 280, I have the honour to transmit the accompanying copy of a letter* addressed by me to Mr. Finnie in consequence, and copies of two letters despatched by him to Mr. Whitehouse at Jaffna, which I received as an enclosure in a letter from Mr. Finnie, which, containing nothing else which the Government would deem essential, I have not thought it necessary to forward.

* Dated 4 March
1847.

2. It will be seen that on the 2d instant Mr. Finnie wrote for the machinery at Jaffna, and again on the 6th instant † to countermand it. I have requested him to send me Mr. Whitehouse's answer as soon as it arrives, and pending its receipt no further measures will be taken.

3. In a personal conference with the civil engineer, he informed me that he should require to meet Mr. Finnie before he could frame any other plan and estimate for a gin-house than that already furnished by him. This meeting will not be practicable for the next month or six weeks, because Captain Horsley's presence will be required during that period in Travancore: I have communicated this circumstance to Mr. Finnie.

4. I have considered it expedient to make this report to Government, with little apparent necessity, because, being ignorant of the degree of urgency in the order of the Honourable the Court of Directors for the shipment of gin-cleaned cotton, and in the consequent desire of Government for the commencement of Mr. Finnie's operations, I wish to place them at once in possession of the means of judging of the delay that is likely to occur, in case any further order should seem requisite.

Tinnevely, 20 March 1847.

(signed) *R. D. Parker, Acting Collector.*

From *J. F. Thomas, Esq., Chief Secretary to Government*, Fort St. George, to
T. J. Finnie, Esq., Cotton Planter.

Sir,

IN forwarding, for your information and guidance, copy of the Minutes of Consultation of Government, Nos. 276 and 280, I have the honour to request that you will inform me what is the machinery from Jaffna to which allusion is made, and what is the nature of the negotiation entered into for its purchase, and whether the purchase has been completed; if not, you will observe that it is not to be concluded for the present.

2. You will also observe, that the construction of the gin-house at Aroopocottah is also to be suspended until the machinery above-mentioned has been purchased; and even then (I gather from the Minutes of Consultation), the Government will not sanction a building so expensive as that recently planned; so that a fresh plan and estimate will have to be made after the machinery has been received. Under these circumstances, I have directed the Sattoor Tahsildar to make no purchases or contracts for materials until further orders.

Tinnevely, 4 March 1847.

(signed) *R. D. Parker, Acting Collector.*

To *E. S. Whitehouse, Esq., Jaffna, Ceylon.*

Sir,

I HAVE the honour to enclose a copy of the Minutes of Consultation, No. 5, under date 2d January 1847, and request you will be good enough to forward to me, for transmission to Government, a bill of the actual cost of the machinery therein alluded to.

You will oblige me by making the best arrangement you can with the boatmen, and ship the machinery to Tutacorin, care of Captain Gordon, master attendant.

(signed) *T. J. Finnie,*
Cotton Planter.

Camp, Aroopocottah, 2 March 1847.

Sir,

To *E. S. Whitehouse, Esq.,*

SINCE despatching my letter of the 2d instant, I have received orders countermanding the purchase of the machinery which you offered for sale, and I have the honour to request you will not ship it as requested in my letter above mentioned.

(signed) *T. J. Finnie,*
Cotton Planter.

Camp, Aroopocottah, 6 March 1847.

† On the receipt of the M. C. of the 26th February.

(No. 76.)

From *F. B. Elton*, Esq., Acting Collector, to *J. F. Thomas*, Esq., Chief Secretary to Government, Fort St. George.

Sir,

WITH reference to paras. 1 and 2 of Mr. Parker's letter of the 20th ultimo, regarding the Jaffna machinery, I have the honour to forward copies of Mr. Whitehouse's replies, and bill of cost for the same, which accompanied a letter from Mr. Finnie, dated the 30th ultimo, received this day, and to request the instructions of Government regarding the payment of the amount to Mr. Whitehouse.

Tinnevely, Trichindoor, 1 April 1847.

(signed) *F. B. Elton*,
Acting Collector.

From *J. F. Thomas*, Esq., Chief Secretary to Government, Fort St. George, to
T. J. Finnie, Cotton Planter, Camp, Aroopocottah.

Sir,

I HAVE to acknowledge receipt this day of your favour of the 2d instant, with enclosures, and have the pleasure to forward you herewith copy of the bill of cost of the machinery alluded to therein.

This machinery shall be shipped as you direct, by the first opportunity, for Tutacorin.

Jaffna, 1 March 1847.

(signed) *E. S. Whitehouse*.

To *T. J. Finnie*, Esq., Cotton Planter, Camp, Aroopocottah.

Sir,

I HAVE to acknowledge receipt of your favour of the 6th instant, countermanding the shipment of the machinery purchased from me by the Government of Madras.

As the sale of this machinery was effected in January last, and the purchase sanctioned by the Board of Revenue on the 2d of that month, and as arrangements have been made for the shipment of it to Tutacorin, in compliance with the instruction contained in your letter of the 2d instant, I shall feel obliged by your forwarding my account to the Board of Revenue for payment; in the meantime I will comply with your request, and postpone the shipment of it, holding and storing it at your risk until further orders.

Jaffna, 16 March 1847.

(signed) *E. S. Whitehouse*.

(True copy.)

(signed) *T. J. Finnie*, Cotton Planter.

11 March 1847.

Memo.—Bill of Cost of Machinery referred to.

<i>E. S. Whitehouse</i> , esq.	Bought of <i>Wm. Lavie</i> , Liverpool.
A set of driving gear for two 60 saw-gins, adapted to be worked on the ground floor, and to be worked by cattle	£. s. d. 155 - -
Freight, insurance, and charges to Ceylon	20 - -
	£. 175 - -

(True copies.)

(signed) *F. B. Elton*,
Acting Collector.

(No. 506.)

Revenue Department.

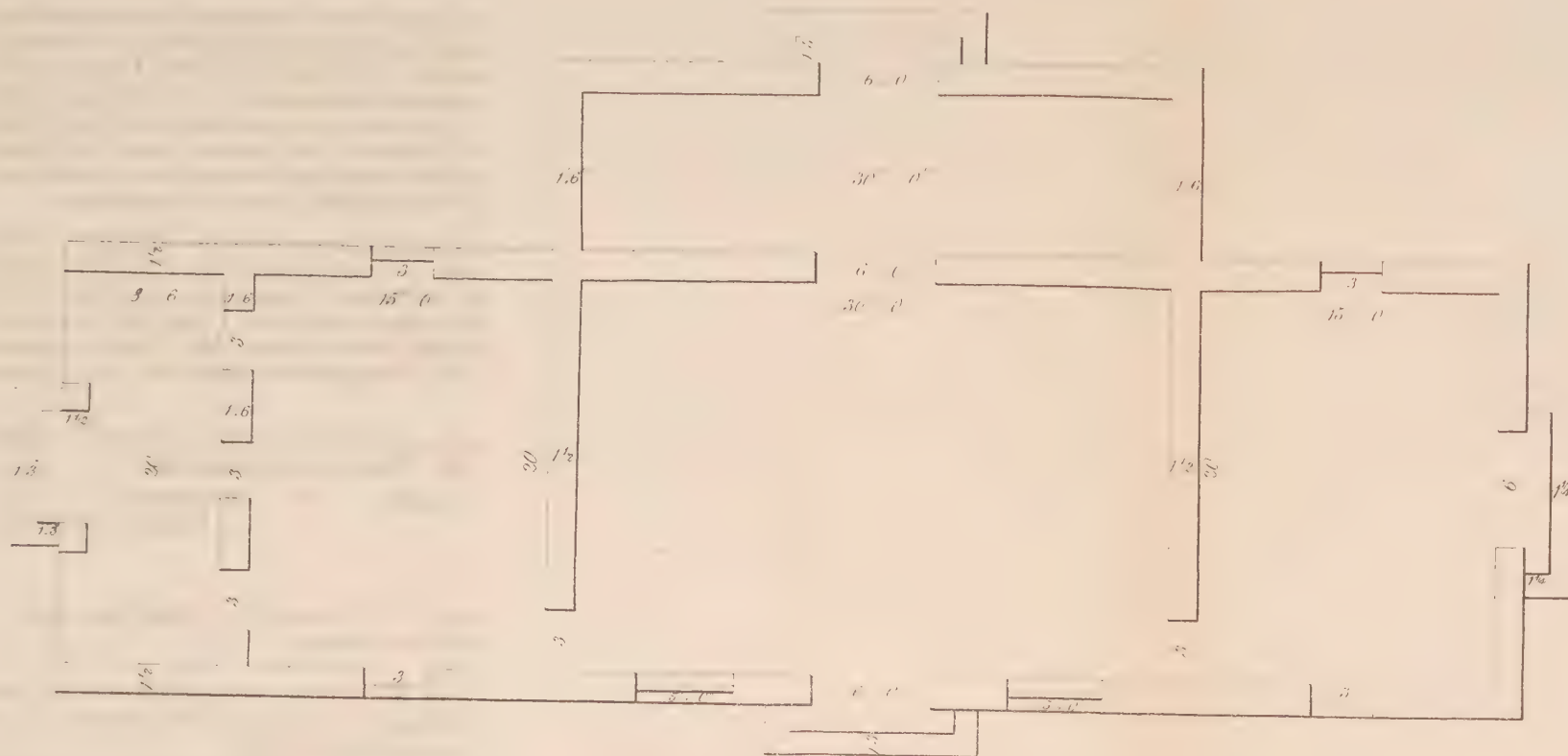
EXTRACT from the Minutes of Consultation under date the 24th April 1847.

Read the following letters from the acting collector of Tinnevely:

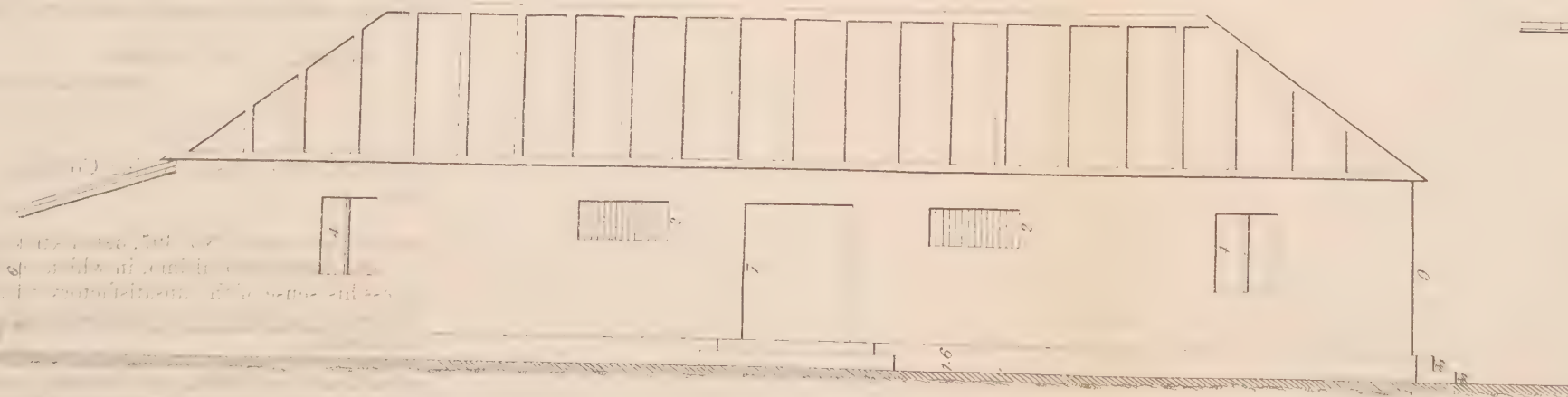
[Here enter 20 March and 1 April 1847, Nos. 66, 76.]

Para. 1. IN his letter, dated 21st October 1846, Mr. Finnie considered "it indispensable to the efficient and satisfactory trial of the experiment" in which he was engaged, that he should be supplied with certain machinery, to which allusion was made in the diary of his proceedings, and which he represented was for sale at Jaffna. The Government sanctioned the purchase on the 2d January 1847; but Mr. Finnie's opinions meanwhile underwent material

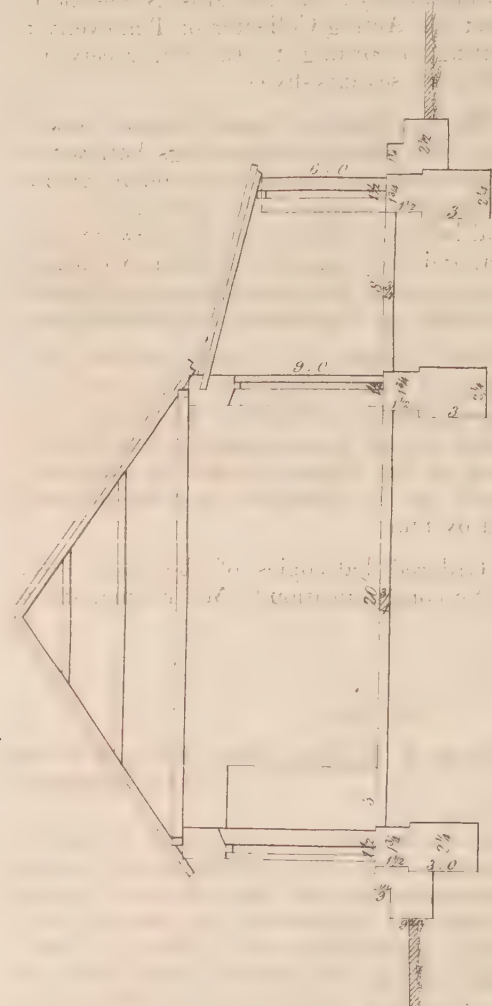
Plan, Section and Elevation
OF A
COTTON GIN HOUSE.
proposed to be constructed at
AROPOOCOTAY,
RAMNAD ZEMINDAREE.



FRONT ELEVATION.



SECTION.



SCALE.



Signed: *W. H. Hersley* Capt.
Civil Engineer - 8th Divⁿ

material change, as in his letter of the 13th January he stated that "he had studied the subject of arranging and driving gins by manual power," and hoped, by some alterations, to be enabled "to make arrangement for driving them by means more on a level with native capacity;" he requested therefore that the sanction for the purchase of the Jaffna machinery might be suffered to remain in abeyance, and the Government ordered that, if not already made, the purchase should not be concluded for the present.

Dy. 2 March 1847
(No 239).

2. It appears from the communications recorded above, that the correspondence on the subject has already proceeded to a length to preclude the possibility of the Government being relieved from the engagement entered into by Mr. Finnie for the purchase of the Jaffna machinery; and the Most Noble the Governor in Council has no alternative left but to direct the Acting Collector of Tinnevely to adjust the amount at which it was purchased, amounting, according to the bill received with his letter of the 1st April, to 175*l*. (one hundred and seventy-five).

3. His Lordship in Council cannot, however, refrain from remarking the unsatisfactory nature of Mr. Finnie's proceedings, both with respect to this machinery, as well as in regard to the gin-house he proposed to build at Aroopocottah. He desires that Mr. Finnie may be called upon to explain with reference to his intended arrangements for "driving gins by manual labour," what he would now propose to do with the machinery purchased from Jaffna, and he requests the Acting Collector of Tinnevely will impress upon Mr. Finnie the necessity of well considering and digesting the propositions he may have to make connected with the experiment entrusted to him before submitting them to Government.

4. His Lordship in Council observes, by a communication from the President of the Manchester Commercial Association received with a recent despatch from the Honourable Court of Directors, that the Association object to the use of hand-gins. A copy of this despatch having been separately furnished to the acting collector of Tinnevely for communication to Mr. Finnie, it will be sufficient in this place to direct Mr. Finnie's attention specially to the objection, as connected with the arrangements for driving gins contemplated by him.

Rev. 3, of 1847,
dated 3 March.

5. Ordered that copies of the above resolutions be furnished to the collector of Tinnevely for communication to Mr. Finnie, and to Dr. Wight for his information.

(signed) *H. C. Montgomery,*
Secretary to Govt.

(No. 135.)

From *F. B. Elton*, Esq., Acting Collector, to *J. F. Thomas*, Esq., Chief Secretary to Government, Fort St. George.

Sir,

I HAVE the honour to forward, as requested by Mr. Finnie, an original letter, No. 663, dated 29th May 1847, explanatory of his proceedings with respect to the purchase of the Jaffna machinery and the erection of a gin-house at Aroopocottah.

I take this opportunity of referring for the consideration of Government a plan and estimate, amounting to *Rs.* 1,376. 12., for a gin-house, framed by Captain Horsley, which appears to meet the wishes of Mr. Finnie, so far as it goes, but, as not including godowns for storing seed cotton, is not considered by him so convenient as a plan he refers to of his own. As, however, this plan of Mr. Finnie's, involving an estimated outlay of *Rs.* 2,431. 13., was objected to be sanctioned by his Lordship in Council, under date 26 February last, it remains to be decided whether Captain Horsley's present plan is to be carried into execution, and, if so, whether godowns are to be estimated for separately. Extracts from Mr. Finnie's reply to my letter on the subject of Captain Horsley's plans, and from his letter of 12th May, accompanying a description of plans (forwarded in original) dated 29th March last, are herewith sent.

(signed) *F. B. Elton,*
Acting Collector.

Tinnevely, 7 June 1847.

(No. 663.)

From *T. J. Finnie*, Esq., Cotton Planter, to *F. B. Elton*, Esq., Acting Collector, Tinnevely.

Sir,

I HAVE the honour to acknowledge the receipt of your letter, No. 397, dated 4th instant, enclosing copy of Minutes of Consultation, No. 506, dated 24th ultimo, in which the Most Noble the Governor in Council is pleased to express his sense of the unsatisfactory nature of my proceedings with respect to the purchase of certain machinery, as well as in regard to the gin-house which I proposed to build at Aroopocotta.

2. I am sure it was as painful to his Lordship in Council to inflict, as it is to me to endure censure, and I am convinced that he will listen with patience to any explanation I may have to offer which will in any degree palliate the errors that are attributed to me, and I request that you will be good enough to submit the following remarks for his consideration.

3. I am not disposed to implicate others in the errors which are imputed to me: I am able and willing to bear the consequence of my own acts; but as the proceedings in regard

to the machinery are not wholly mine, I may mention, without impugning their motives, or the correctness of their views, that as early as February 1846 the machinery was recommended to me by Mr. Petrie, the engineer, supported by Dr. Wight, superintendent of cotton plantations, who have had much experience in the use of cattle machinery for driving gins; but being most anxious to conduct the business entrusted to me on the most economical plan, and on a level to native capacity and means, I did not at that time concur in the views expressed by these gentlemen; but subsequently finding greater difficulty in working the gins by manual labour than I expected, and from the specimen of the labourers, as exhibited at the two zemindaries, where the gins were erected, I formed a poor opinion of the physical ability of the people to perform the work with such gins as had been supplied to me, the imperfections of which I shall not now dwell on, as Mr. Petrie is disposed to do all he can to remedy the defect; and having drawn up a very unfavourable statement* regarding ginning operations, which Dr. Wight considered was founded on incorrect data, and feeling that the subject was of vast importance, involving, as it does, the best interests of this country, I was not willing that it should be decided on insufficient data on which to base a conclusion as to what could be done, I concluded that no efforts ought to be left untried to effect the important object in view. I referred to the letter containing the recommendation of the machinery, which was represented to be for sale in Ceylon, and, after giving the subject careful attention, I felt that I ought not, in justice to Government, to overlook the views of others, and cling solely to my own in preference; and though I had no very sanguine hopes that the cattle machinery could materially change the conclusion at which I had arrived, I adopted the views of Dr. Wight and Mr. Petrie, and recommended the machinery merely to "see," as expressly stated in my diary,† "if the gins will pay when a simple moving power, worked by cattle, is applied to them." I had my doubts, and still have, whether they will pay under any circumstances in our hands; but for the "efficient and satisfactory trial of the experiment," I considered it essential to make the effort. This, I think, establishes my consistency for recommending the machinery, after having represented ginning operations as impracticable as a mercantile transaction; and now I beg to offer a few remarks in reference to the causes which induced me to oppose the purchase.

4. The recommendation of the machinery being based on the imperfections of the gins, and the supposed unwillingness or inability of the people to work them, I pointed out the defects of the machines to Mr. Petrie, who, with his usual urbanity, promised to rectify them, which removed one of the greatest difficulties in the way of the successful application of manual labour; and on becoming more acquainted with the people in the district, I found that they were not only able, but willing to work the machines after the improvements were effected, when paid for their labour; it appears now that those who worked the gins at the zemindars, were forced, or only half paid, which satisfactorily accounts for their inefficiency.

5. As we never use the gin as a hand-instrument in Mississippi, the plan was new to me; but, giving my attention, and bringing my little mechanical science, and a good deal of practical knowledge as to what the machines require, to bear upon the subject of applying so novel a power to them, I thought, and still think, that I had resolved on a plan which will give greater efficiency to manual labour; and having made some calculations regarding the cost of the machinery, the cost of transportation across the Gulf, the cost of transit to this place, the cost of erection, and last, but not least, the cost of keeping up a large establishment of bullocks all the year to work during the cotton season, in comparison to the cost of men, who are only paid for the time they work, and the consideration of the fact that the machinery was made to go at a certain speed when drawn by horses that walk about four miles an hour, and will consequently go too slow when drawn by bullocks that will not exceed a speed of two miles an hour, my experience in working gins lately bears me out in the supposition that the cattle machinery might be dispensed with.

6. Considering all these circumstances, I thought I saw we had committed an error in regard to the machinery, which I only recommended that no cause of dissatisfaction might be raised as to the completeness of the trials we had made to effect the so much desired improvement in the cotton of this country; and when framing a plan for the gin-house, to run gins by hand in the manner which we adopt in America for horse machinery, viz., to have the moving power below the machine to be moved. I bore in mind the possibility of the application of cattle machinery, in case my hand-gin plan did not answer expectation, and the plan was arranged with special reference to both. I should have proposed the withdrawal of my proposition to purchase the machinery in my letter of the 16th of December, but concluded that in case it was sanctioned, we could let it be on the table until we were satisfied that the machinery was essential to success. It had by this time occurred to me that we could easily try the efficiency of both plans by comparison of the result of my hand system with Dr. Wight's cattle machinery at Combarore, and if the latter proved the best, then the Ceylon machinery could be ordered; and if the former was found preferable, the sanction could be abrogated.

7. Under these considerations, and with a sincere desire to act for the best interests of my honourable employers, on the receipt of the Minutes of Consultation of the 2d of

* See letter to the Chief Secretary, dated 28th August 1846.

† See conclusion of para. 10 in Diary, dated 21st October 1846.

January, I wrote, without intending to throw a firebrand into the gin-house at Coimbatore, to ask permission of Government to keep the sanction to purchase the machinery in abeyance until I should be able to ascertain to a demonstration the advantages to be derived by the purchase. As Dr. Wight had supported me in the recommendation, I considered it but due courtesy to send the letter to Government through him, which I did; but he, taking a mistaken view of my proposition, opposed it in warmer terms, I think, than the occasion required, urging that the machinery was already purchased, and could not now be altered forsooth, because an unauthorised person had communicated the proceedings of Government to the party interested in the sale of the machinery. I received a copy of this letter, but neither that nor Dr. Wight's private letter convinced me that the machinery was irrevocably purchased. I still declined acting upon the order, and determined to wait until I heard further from Government.

8. The receipt of the Minutes of Consultation, No. 183, under date 8th February, containing the extract from Dr. Wight's letter, which represented the machinery as unalterably purchased, and consequently supporting Dr. Wight's argument, if it was not the intention to convey this impression, why was the extract sent to me? I then determined to write to Government, declining all further agency in the matter, and actually did indite a letter to that effect; but, on reflection, it appeared to me so evident that the Most Noble the Governor in Council concurred in Dr. Wight's views, and finding that I stood alone, I concluded that although I might be armed with the weapons of power, I had no hope of success in a contest with puissance itself, and that further opposition on my part would only be attributed to contumacy. I was well aware of the respect due to the slightest wish of Government, and yielded; gave up my own judgment in deference to others; and after postponing for a time the act which would close the purchase of the machinery, I reluctantly wrote, mechanically and as a passive agent, in obedience to my honourable masters, to Mr. Whitehouse, on the 2d March, requesting him to send the machinery. On the evening of the 6th of March, I received the Minutes of Consultation, No. 276, under date 26th February, ordering that "if not made, the purchase should not be concluded for the present;" but it was too late by four days. The deed was done, though by my act, against my advice offered to Government in ample time to prevent the purchase; and had the Minute of Consultation of the 8th February contained the positive injunctions which that of the 26th of the same month communicated, I should have been spared the pain of this censure, and the machinery would not have been purchased without further orders from Government.

9. My apparent vacillation in regard to the machinery was amply sufficient, without a knowledge of the facts which prompted my course to justify the dissatisfaction his Lordship in Council has expressed; but I am at a loss to know upon what the censure is based in regard to the part I have taken in reference to the gin-house I proposed to build here; I am responsible for the plan alone, and I still maintain that the plan, for convenience of arrangement with reference to the business for which it is intended, is unobjectionable, and must be approved by any one practically acquainted with the details of the work to be done.

10. I cannot persuade myself that the cost would be an insurmountable objection if his Lordship in Council had not been impressed by Dr. Wight's "misgivings" that my course of procedure was injudicious; but should the cost be an objection, I think when it is considered that the house contains room for six gins, and ample godowns for the temporary storage of seed cotton, and that it was hoped that the Ceylon machinery would be dispensed with altogether, this objection does not appear based on very stable grounds. The expense of the house, however, if built of some dried brick and mud, as I originally intended, would be greatly lessened.

11. I may remark, that though I learned from a copy of Dr. Wight's letter to the Collector that Government had authorised me "to proceed with the building, in communication with the collector and the Civil Engineer," the collector politely declined my offer to take the execution of the work into my own hands, and thought that Government would be better satisfied to know it was done by the executive establishment. This was about the last of January, and on the 26th February the thasildar made his appearance here, and advanced rupees (50) fifty for brick, and left soon afterwards. The Minutes of Consultation, No. 280, of the 26th February, put a stop to the work. Thus you see I had nothing whatever to do with the matter but to suggest the plan.

12. The house was intended to contain six hand-gins, three in each end, or if the machinery was found essential, it would be applied to one end to drive two 60 saw-gins.

EXTRACT from Dr. Wight's Letter to the Collector of Tinnevely, dated 12th January.

Para. 3. "As regards the plan of the house he proposes to erect, so far as yet explained, I confess I have some misgiving. He proposes to work a set of gins at each end, but does not say whether both sets are to be moved by machinery, or one set by cattle-power, the other by manual labour. If the latter is the object in view, then the plan of the house is most appropriate." Precisely so.

4. "Mr. Finnie, in his first letter, lays considerable stress on the importance of having the moving power below the level of the gin to be driven."

"The arrangement sketched in the accompanying plan completely merits (meets) his views on this point, which is so far fortunate. I may, however, take advantage of the opportunity which the remark offers, to mention, that in Coimbatore we have tried both ways to a great extent, and the gins being properly fixed, are satisfied that the one possesses no advantage over the other, provided the conductor of motion from the moving power is adjusted with equal precision in both cases. I do not mention this with any view to alter or interfere with that part of Mr. Finnie's plan, but simply for the purposes of communicating information that may possibly be found useful in the course of erecting and putting in motion the machinery purchased, and now about to be fitted up for work."

13. The information which Dr. Wight gives was supererogatory, and though doubtless given with the best intention, under the impression that I did not know what I was about, has had the effect of interfering with my plan, which his own letter proves to be correct; but he thinks there is no advantage; I maintain there is a decided advantage in convenience of arrangement.

14. As his Lordship in Council can know nothing of my proceedings regarding the house but from Dr. Wight's letter, expressing his "misgivings," or the collector's quotation of the trite expression, I beg to draw especial attention to the very complete manner in which Dr. Wight's letter shows the correctness of the plan. I do think that but little consideration for my feelings or reputation was exercised by Dr. Wight in expressing his "misgivings" to the Collector or to Government, when he might just as well have expressed them to me, and all explanations would have been rendered, and the matter dropped; and I am surprised that Dr. Wight's "misgivings" should have been quoted to Government by the amiable late Acting Collector of Tinnevely, when he had all the means of ascertaining the correctness of my plans at his command; indeed, after I had endeavoured to explain to him the plan, and after having assured him that I was satisfied as to its correctness; but as I am not a professed engineer, no confidence, it seems, was placed in my explanation. Though not a professed engineer, I may remark that all American planters build their own gin-houses, and houses of all descriptions, that is, the work is done by the negroes on his estate under his direction; and I having built houses at home, it would be lamentable were I not able to do so here. But the "misgivings" were quoted with what additions I know not, as I did not get a copy of the letter, and the consequence was, the impression was created in the mind of the Most Noble the Governor in Council that I was floundering in a matter quite beyond my depth; and, for the first time in life, reflections have been cast on my reputation as a business man by the highest authority in this Presidency.

15. That I erred in recommending the purchase of the machinery I am convinced, but that I did not err in opposing it, Government will find to its cost. I found I had erred, and was aware of the danger of acknowledging it; but, instead of shivering and shrinking from that danger, I boldly faced it. I felt it my duty to do so; that duty I feel a proud gratification in having discharged: convince me of error, and I shall yield, and humbly ask pardon for all I have said and done; but believing, as I do, that the machinery cannot prove advantageous, I cannot express regret at the course I have pursued in endeavouring to stop the purchase of it, and save those I serve from a heavy loss.

16. The arrival of the suggestion of the President of the Manchester Commercial Association giving so decided a preference to the use of the gins moved by cattle machinery over those moved by hand, supported as it is by the Honourable Court of Directors, the Most Noble the Governor in Council, and Dr. Wight, is peculiarly fortunate at this particular time, as it extricates me from the dilemma in which it seems I am placed by my misfortune in taking a different view of the subject. With such an array of the statesmen and talented business men on the opposite side, it would be unpardonable temerity on my part to persist in urging the correctness of my own views. Therefore, although my judgment is not convinced, nor my opinions* changed, I waive my own views, and unite in the common cause for the public good. I agree with those who have expressed opinions on the subject of the improvement of the cotton of this country, in the importance which they have attributed to the proceedings adopted by Government. They have, I think, not at all overrated that importance, nor ascribed to the proceedings an influence, in case of success, which does not belong to them; perhaps, however, I differ with them in the means to be used, and am not now quite so sanguine of success under any circumstances as they are who have had no experience in the difficulties attending improvements in this country; yet I consider it absolutely essential that no means be left untried to accomplish the object in which so many are interested. But if I may still be allowed an opinion, I would remark, that the means to be used for the accomplishment of the object ought to be considered with reference to the character of the people who are expected to adopt the new mode of procedure as a means of livelihood.

17. It is evident that it will be more satisfactory to the merchants and manufacturers who take an interest in the experiment, to know that both plans have been fairly tried. The President of the Association, who offers his suggestions, thinks the "hand-gins should not be used until their efficiency has been more fully proved." How is their efficiency to be proved but by use?

18. As

* See letter to the Chief Secretary, dated 28th August 1846.

18. As I am compelled to use the cattle machinery, and think it desirable that the hand-gins should be used, I repeat the proposition contained in my letter of the 12th instant, that the cattle machinery be erected at one end of the house, and the hand-gins in the other; that by working them in juxtaposition, we may ascertain to a mathematical demonstration which is the best.

19. As my plan of a house has been objected to, I hope Captain Horsley will come out here, and ascertain, from personal observation, what the gin is, and then he can frame his own plan for the gin-house.

20. In conclusion, permit me to assure his Lordship in Council, that I regret exceedingly that my proceedings have not met the approbation of Government, and that I hope this explanation will so far palliate the errors attributed to me, as to insure for me a sufficient degree of confidence to enable me to conduct the business in which I am engaged with satisfaction to all concerned. I shall attend strictly to the admonition so kindly given in reference to "the necessity of well considering and digesting the propositions I have to make connected with the experiment before submitting them to Government." I shall not only bear this admonition in mind, but shall gladly consult with those in authority as to the best plan of procedure. I may be permitted at the same time earnestly to request that henceforth those associated with me in the business, be good enough and just enough to ascertain that I have erred before making their representations to Government on the mere supposition that I have. I am sorry, very sorry, that I have pursued a course displeasing to Government, but I have no cause to regret any official opinion I have expressed, nor official act, except the recommendation of that unfortunate machinery. I shall be content to let time show how far I am correct in the views I have pronounced. From clear perception in political economy, I have recorded opinions opposed to my interest. I will do all I can to prove those opinions erroneous.

21. Without reflecting on others, I respectfully submit this explanation of my course of procedure to the consideration of the noble Lord at the head, and the honourable gentlemen associated with him in the Government, with a firm conviction that they will be glad to give it their impartial judgment, and determine the justice and equity of the censure they have been pleased to inflict on me.

(signed) T. J. Finnie,

Camp, Aroopocottah, 29 May 1847.

Cotton Planter.

EXTRACT from a Letter from Mr. T. J. Finnie, Cotton Planter, to the Acting Collector of Tinnevely; dated 12 May 1847.

3. As we have a house which contains all the gins we have here, and as we have no place in which to store more seed cotton than they will gin in a reasonable time, we shall have ample opportunity to deliberate on the plans to be adopted for future operations.

4. The delay in regard to the house is of no importance; for, in consequence of the people refusing to sell the seed cotton at a reasonable price, or to supply the superior article at any price, we are unable to keep the gins I have erected here, employed. I have, on several occasions, made arrangements for supplies of cotton according to sample; but when the article was brought for delivery, it always proved so inferior, that I was compelled to reject it. Time alone can regulate this; the people naturally suppose by my being here, that cotton is much enhanced in value, and that I must buy at any price.

5. I call your attention to the accompanying description of the several plans of gin-houses I have sent to you (written some time ago), and to refer you to previous letters for the relative advantages of each.

6. I think it would be well if Captain Horsley would come out here, where he could see what the gins are, and how they require to be driven; whatever plan may be decided on, I propose that the cattle machinery, which is now irrevocably purchased, be erected in one end of the house, and the hand gins in the other, that we may, by placing them thus in juxtaposition, ascertain which plan is the most efficient.

7. The success of our efforts to supply the improved cotton of this country at remunerating prices, depends solely upon the cost at which the improvement is effected. We no longer need to try experiments to prove that the ginned cotton is cleaner and in a more merchantable condition than the common article supplied by the natives. We all know that to effect that improvement at a cost proportionate to the increased value of the article, is a desideratum, and I shall be glad if I can aid in accomplishing the object.

(True extract.)

(signed) F. B. Elton, Acting Collector.

Madras.

EXTRACT from a Letter from Mr. *T. J. Finnie*, Cotton Planter, to the Acting Collector of Tinnevely, dated 21st May 1847.

* Herewith returned.

1. I HAVE the honour to acknowledge the receipt of your letter, No. 433, dated 11th instant, enclosing a plan* of a gin-house, and requesting me to inform you "if it will be suitable for all purposes," for which a gin-house is required.

2. In reply, I beg to state, that the plan is correct according to the sketch I supplied for it, and it will answer the purpose of a gin-house, but not for all the purposes in connexion with a gin-house. The appropriate and convenient arrangement of the premises and machinery for operations in cotton is, in my humble opinion, a desideratum in this country; and as there is no great hurry now for the gin-house, it may be well to consider the matter well before deciding upon any plan: with this view, I beg to draw your attention, and the attention of the civil engineer, to the relative advantages offered by each of the plans I have already supplied to you, which may be thus succinctly summed up.

3. By the adoption of the plan now under consideration, you must have the machine to be driven and the driving power on the same plane, which places the bands and wheels much in the way; but in the case of the cattle machinery this may be obviated, by sinking the driving power inconveniently below the ground, or raising the machines to be driven on scaffolds inconveniently above the ground; besides, this plan has no extra rooms to be used as godowns for storing the seed cotton. This plan is estimated at rupees (1,376. 12.) one thousand three hundred and seventy-six, and annas twelve; add to this the cost of erecting two godowns 20×20, which the original plan contains, and which must be built separate if this plan is adopted; and see how far this falls short of the estimate for the original plan, which was complete in itself.

4. I shall cordially co-operate with you and the Civil Engineer whenever I am required to do so. Though no engineer, the building of a simple house, and the erection of simple machines for cleaning cotton, are, to me, very plain and simple matters; but it is impossible for any one to conduct business satisfactorily to himself, or those he serves, where several others, professedly unacquainted with the details of the work, are at liberty to interfere on all occasions. I am sure that all this difficulty in regard to the gin-house has originated from the numerous parties who have figured in it taking a different view of the essential practical arrangements. This misunderstanding I am most anxious to avoid for the future, and I think that if Captain Horsley could come out here, that we might confer together with the machines before us; he would arrive at a correct understanding regarding what is required for the gins, and then he could frame a plan of his own, which from him would be above the "misgiving" of any one.

(True extract.)

(signed) *F. B. Elton*,
Acting Collector.

DESCRIPTION OF PLANS.

PLAN No. 1 is the representation of a house which I proposed to erect, with an upper floor, in the hope of being able to apply the manual labour to better advantage than hitherto, thereby dispensing with the Ceylon machinery.

The plan shows a house of six rooms, three on the lower and three on the upper floor, the four end rooms being 20×20, the two middle rooms being 30×20 inside.

The two upper end rooms are appropriated to the gins which discharge the cotton into the upper centre room, called the "lint room."

I have appropriated the lower centre room for the wheels and labourer, and reserve the two lower end rooms for godowns, or they may be appropriated to the wheels, and the centre rooms be used as a godown. I prefer the plan I have adopted in placing the wheels in the centre room.

The wheels and gins are connected by a single band, which passes through the wall and floor, and connects with the gins from the rear at an angle of about 45 degrees, which plan gives the gin the compound motion it requires. The saw cylinder and the brush revolves in opposite directions, the latter with an accelerated motion of about five revolutions to one of the former, which is effected by proportioning the size of the cylinder and brush-whirls in that ratio. To drive both with one band is a desideratum in this country. The plan I propose effects the object completely by the under part of the band passing over the brush-whirl, and drives it in the opposite direction to that which it gives to the cylinder. To prevent the friction of the upper and lower sides of the band as it revolves, the upper one passes over a small pulley, so placed as not to add materially to the friction. These are the advantages I expected from the plan I proposed, and now referred to. In case the machinery proved the cheapest process, which I intended to test by my manual labour plan and the Coimbatore cattle machinery, the Ceylon machinery might then have been ordered and erected at one end, as shown in plan No. 2. This House (Plan No. 1) is estimated by Captain Horsley at rupees (2,442. 4.) two thousand four hundred and forty-two, and annas, four. If sun-dried brick and mud are used, it could be erected for much less.

By the arrangement of the gins and driving wheels, as above proposed, the bands are not at all in the way, but in the other plan it will be seen they are very much so.

Plan No. 2 is the one proposed, when I found the other was too expensive for Government.

This house is well adapted to the cattle machinery when it is sunk below the ground, as shown in the rough sketch of it; but unless it is sunk inconveniently low, or the gins raised considerably, the bands will be too short to admit of easy or expeditious operations. The advantage of a reasonable length of band is well established in scientific mechanics. I know the advantage practically, and have acted upon it in the erection of the gins which are now ready for work, and have provided for it in the plan for working the hand-gins in the opposite end of this house; but I cannot place the bands out of the way; they stretch completely across the room, and inflict the disagreeable necessity of stooping under them; indeed they are much in the way of the labourers in taking the seed cotton to the gins, and then in taking the seed away after they have passed through the gin, and to the superintendent who has any taste in the arrangement of his business, it is distressing to behold; but, while in the discharge of his duty, to be compelled to twist himself through quickly revolving straps of leather, is anything but agreeable to personal comfort. This house will cost, if burnt brick and lime are used, twelve hundred rupees (1,200). I have agreed to erect it for one thousand rupees (1,000), if allowed to do it myself. If sun-dried brick and mud are used, the cost will be much less. It is double the size essential for the operations of the Ceylon machinery.

Plan No. 3 is the "cheap-gin-house" I originally thought of for the Ceylon machinery, with the addition of a packing room. This I will erect for seven hundred rupees (700), exclusive of all expenses connected with the erection of the machinery. If it is erected of sun-dried brick and mud, the expense will be very trifling.

All these plans will answer the purposes for which they are respectively intended, but in my humble opinion the plan No. 1 is far superior to the others; the additional cost, I think, should not reasonably be an insuperable barrier, but I leave the matter to those who can see further into the mill-stone than I can.

(signed) T. J. Finnie,

Camp, Aroopocotta, 29 March 1847.

Cotton Planter.

Revenue Department.—No. 775.

EXTRACT from the Minutes of Consultation, under date 8 July 1847.

Read the following letter from the Acting Collector of Tinnevely:

Forwarding an original letter from Mr. Finnie, explanatory of his proceedings with respect to the purchase of the Jaffa machinery, and the erection of a gin-house at Aroopocottah, and referring, for the consideration of Government, a plan and estimate for a gin-house.

[Here enter 7 June 1847, No. 135.]

REFERRING to the explanation and observations of Mr. Finnie, contained in his communication to the Collector of Tinnevely, dated 29th May 1847, the Most noble the Governor in Council requests that officer will inform Mr. Finnie, that the confidence entertained by Government in his zeal and ability continues unimpaired, and that his proposition to erect the cattle machinery at one end, and the gin-house and the hand-gins at the other, so that the relative advantages of the two systems may be fairly tested, is approved.

The Collector will request Captain Horsley to take an early opportunity of personally communicating with Mr. Finnie, and submit a fresh plan and estimate for a gin-house, that will include all the conveniences for storing seed cotton, &c., which Mr. Finnie may consider necessary.

(signed) H. C. Montgomery,

Secretary to Government.

EXTRACT of a Letter from the Government of Madras to the Honourable the Court of Directors, dated 18 November (No. 56) 1847.

Para 1. We have the honour to submit copy of further correspondence connected with the experimental cotton farms under this Presidency, in continuation of our letter, No. 47, dated 3d September 1847.

2. From these papers it will be observed, that we sanctioned the construction of a gin-house at Sevacashy in the Tinnevely district, at the estimated cost of Rs. 2,699 0 7.

Revenue Department.

EXTRACT of a Letter from Surgeon R. Wight, Superintendent Cotton Farms, Coimbatore, to Sir H. C. Montgomery, Bart., Secretary to Government, Fort St. George, dated Coimbatore, 28 July 1847.

Sir,

I HAVE the honour herewith to transmit for sanction a bill for Rs. 496 9 8, on account of an American-built 18-saw saw-gin, purchased for the purpose of being used as a model in the construction of others in our stores.

24 Aug. 1847,
Nos. 14, 15,
28 Sept. 1847,
Nos. 23, 24,
5 Oct. 1847,
Nos. 25, 26.

II.
Madras.

2. It will be seen by the accompanying correspondence, that some misunderstanding and irregularity has taken place in the arrangement, and that I view the item charging Rs. 22. 3. 9. for commission as objectionable, on the ground that it is not the purchaser, but the proprietor, who ought to pay the agent's commission.

Revenue Department.

(No. 945.)
EXTRACT from the Minutes of Consultation, under date 23 August 1847.

Read the following letter:

From Surgeon R. Wight, Superintendent Cotton Farms, Coimbatore.

Transmits for sanction a bill of costs for an 18-saw gin purchased, and copies of correspondence for information.

[Here enter 28 July 1847.]

Para. 1. THE Most noble the Governor in Council sanctions the charge incurred in the purchase of an American-built saw-gin, amounting, as reported in the foregoing letter, to Rs. 496. 9. 8, (rupees four hundred and ninety-six, annas nine, and pies eight.

(signed) H. C. Montgomery,
Secy. to Govt.

From F. E. Elton, Esq., Acting Collector, to J. F. Thomas, Esq., Chief Secretary to Government, Fort St. George.

Sir,

Para. 1. I HAVE the honour to report the arrival of the Jaffna machinery, referred to in the Extract from the Minutes of Consultation, under date the 24th April last, and to forward for the sanction of Government a bill of charges incurred on account of freight, landing, &c. of the same, amounting to Rs. 102. 7.

2. In addition to the price of the machinery, 175*l.*, Mr. Whitehouse, from whom it was purchased, has sent in the enclosed bill of charges for storage, interest, &c., amounting to 13*l.* 13*s.* 6*d.*, with the accompanying letter, dated 11th August 1847, but as the two items, storage and interest, are, for reasons detailed by Mr. Finnie, in his letter of 30th ultimo, herewith enclosed, considered objectionable, I beg to submit them for the final decision of Government.

(signed) F. B. Elton,

Tinnevely, Collector's Office, Courtallum, Actg. Collector.
6 September 1847.

Revenue Department.

(No. 1056.)

EXTRACT from the Minutes of Consultation, under date 25 September 1847.

Read the following letter:

From the Acting Collector of Tinnevely. Reporting the arrival of the Jaffna machinery, and forwarding for sanction a bill of charges incurred on account of freight, landing, &c., amounting to Rs. 102. 7.

[Here enter 6 September 1847, No. 215.]

Para. 1. THE Most noble the Governor in Council sanctions the charges for freight, landing, &c., incurred on account of the machinery supplied by Mr. Whitehouse from Jaffna, amounting to Rs. 102. 7. (rupees one hundred and two, and annas seven.

2. With reference to the charges claimed by Mr. Whitehouse in addition to the price of the machinery, his Lordship in Council is not prepared to admit the item for interest, nor that portion of his bill in which a demand is made by the agents he employed for commission, warehouse rent, and transport of machinery to their godowns. The charges for the items noted in the margin,* amounting in all to 4*l.* 17*s.* 6*d.*, are passed, and the Acting Collector of Tinnevely is authorised to adjust the payment of the same, as requested by Mr. Whitehouse, by a bill on the Accountant-general at Madras, on his giving a receipt in full of all demands.

(signed) H. C. Montgomery,
Secretary to Government.

	£.	s.	d.
* Stowage	-	-	3 18 -
Removing and shipping machinery	-	-	- 18 -
Oiling and cleaning sundry parts before shipping	-	-	- 1 6
	£. 4	17	6

(No. 222.)

From *F. B. Elton*, Esq., Acting Collector, to *J. F. Thomas*, Esq., Chief Secretary to Government, Fort St. George.

Sir,

WITH reference to the Extract from the Minutes of Consultation, dated 8th July last, I have the honour to forward plans and estimate for the erection of a cotton gin-house at Sevacausey in this district, amounting to Rs. 2,699. 0. 7. received from the Civil Engineer of this division, for the approval and sanction of Government. The present plan is approved of by Mr. Finnie, who has proposed that, for the reasons shown in his letter, dated 12th ultimo, it should be erected at Sevacausey, instead of at Aroopocottah, a proposition which I quite concur in. Sevacausey may be considered the chief town connected with the cotton trade in Tinnevely, and is situated in the Government lands, instead of in a zemindary, as is the case with Aroopocottah; it is also more convenient that it is within the Tinnevely district, instead of Madura, as Mr. Finnie has always been in more immediate connexion with the former than the latter.

Copies of the Civil Engineer's letter, forwarding the plans and estimate, and of Mr. Finnie's, above referred to, are herewith forwarded.

(signed) *F. B. Elton*,
Acting Collector.

Tinnevely, Collector's Office, Courtalum,
15 September 1847.

From Captain *W. H. Horsley*, Civil Engineer, Eighth Division, to *F. B. Elton*, Esq., Acting Collector of Tinnevely.

Sir,

As requested in your letter, No. 720,* forwarding copy of an Extract from the Minutes of Consultation, No. 775,† I have the honour to submit herewith fresh plans and estimate of Rs. 2,699. 7. for a cotton gin-house to be erected at Shevacausey, in the district of Tinnevely, drawn up after personal communication with Mr. Finnie, and finally approved of by him.

* 17 July 1847.
† 8 July 1847.

The building, as now designed, includes all the conveniences for storing seed cotton, and for working two sets of gins, one by cattle machinery and the other by hand, so that the relative advantages of the two systems may be fairly tested. The arrangement of the rooms and the uses to which they are to be applied, are entirely according to Mr. Finnie's own wishes.

The estimate now forwarded does not provide for the setting up of the machinery, nor for the carriage of the same from Tutacoorien to Shevacausey, but solely for the building itself.

(signed) *W. H. Horsley*, Captain,
Civil Engineer, Eighth Division.

Casmajorpurum, 11 September 1847.

(No. 1005.)

To *F. B. Elton*, Esq., Acting Collector of Tinnevely.

Sir,

THE gin-house which I succeeded in renting at Aroopocottah, subsequently to the proposal I made to erect one there, answers the purpose very well. The thresher and three gins and the driving-wheels are fixed in the house, and the rent is only 10 rupees per mensem. I have the honour to suggest the propriety of erecting the new gin-house, which has been sanctioned, at Sevacausey, instead of Aroopocottah. If there was no house at the latter place, I should still prefer it to the former; but there is no necessity for two gin-houses at one village, and as the present one answers for Aroopocottah, and Sevacausey being a large cotton mart, through which the new road passes, and as the new gin-house must be built to accommodate the cattle machinery, I think it desirable to have it erected there, that a knowledge of the new mode of cleaning cotton may be more extended.

If the proposition meets your approbation, I request you will be good enough to submit it to Government, if you think it essential to trouble his Lordship in Council with the detail arrangements in a matter of this kind.

(signed) *T. J. Finnie*.

Camp, Sencottah, 12 August 1847.

Revenue Department.—No. 1083.

EXTRACT from the Minutes of Consultation under date 4 October 1847.

Read the following letter from the Acting Collector of Tinnevely:

Forwarding for sanction of Government plans and estimate for the erection of a cotton gin-house at Sevacausey in this district, amounting to Rs. 2,699. 0. 7

[Here enter 15 September 1847, No. 222.]

AGREEABLY to the opinion communicated in the foregoing letter, the Most Noble the Governor in Council sanctions the construction of a gin-house at Sevacausey, in the Tinnevely district, at the estimated cost of Rs. (2,699. 0. 7), two thousand six hundred and ninety-nine and pies seven.

(signed) *H. C. Montgomery*,
Secretary to Government.

(No. 67.)

From *E. B. Thomas*, Esq., Collector, to *Sir H. C. Montgomery*, Bart., Officiating Chief Secretary to Government, Fort St. George.

Sir,

Para. 1. I HAVE the honour to forward from Mr. Finnie the report called for by Government in their Minutes of Consultation, under date the 9th instant,

2. With reference to late public meetings of the Calcutta Agricultural Society, at which testimony was adduced of the great use and value of a new cotton-cleaning machine (apparently a modification and improvement of the native churka, as already tested and approved at Calcutta and Agra), I would beg to suggest the propriety and desirableness of procuring, through Government, a model for this district, where I shall do my best, in co-operation with Mr. Finnie, to turn it to practical benefit, and report on its efficiency.

(signed) *E. B. Thomas*, Collector,

Tinnevely, Trichendoor,
21 March 1848.

From *T. J. Finnie*, Esq., Cotton Planter, to *E. B. Thomas*, Esq., Collector of Tinnevely.

Sir,

I HAVE the honour to acknowledge your letter, No. 240, under date 14th instant, enclosing an extract from the Minutes of Consultation, requesting a report of my proceedings.

2. To satisfy Government, until I can supply a detailed report, I beg to submit the following remarks:

3. The result of the American cotton, which I induced the people to plant last year in the districts of Tinnevely and Madura, was a complete failure, which was attributed to want of rain, and the result of the operations this crop year is as complete a failure in the American cotton, and is attributed by the people to excessive rain. The operations have been conducted by the people themselves, at no cost to Government beyond superintendence.

4. I did all I could to purchase and gin cotton to carry out the Honourable Court's orders, but finding that I could not conduct the business satisfactorily as a merchant, I would not conduct it unsatisfactorily as the servant of Government. Had I disregarded the interest of my honourable employers, I might have purchased largely and ginned extensively, and have seemed to do much and to be zealous, while I should really have done much injury, not only to the cause, but have wasted the public money. I did not purchase, because I saw it was a losing business, and could lead to no satisfactory conclusion. I took the responsibility of exercising my discretion; I have, however, fortified myself with very strong ramparts if the matter is looked on commercially. I beg now to submit officially the result of one day's ginning operations, with my letter to Messrs. Arbuthnot & Co. on the subject, and their reply; this, I hope, will be amply sufficient to justify the apparently inactive course I have pursued in ginning operations.

5. As soon as I received the Minutes of Consultation, under date 30th June 1847, sanctioning the cotton farm at Courtalum, I went there to commence operations. The heavy bursts of rain from the south-west monsoon were over before I got there, and I had to wait for rain, which fell on the 10th September, when I commenced cleaning up and planting a piece of new land, as well as planting a piece of old land. Though planted too late, the American cotton there has done well for this country, and is now producing a good crop. This will explain the items of expenditure under the head of cleaning land, &c., and the godown

godown rent is for the gin-house and godown, I succeeded in renting at Aroopocottah in which to try the efficiency of the gins, and I trust it will meet the approbation of the Honourable the Governor in Council.

6. I may remark that I am so well satisfied as to the inefficiency of the machine for this country, that I am much disposed to renew my protest against Dr. Wight's Ceylon machinery, and the house which has been ordered to be erected for it; but my views on that subject are on record, and I refrain from saying more than that the first loss will be the least.

7. I am here ready to gin cotton as soon as the season opens, and shall do for my employers just as I should do for myself; but if more is expected, I beg that orders may be issued, and I will obey them.

(signed) *Thomas James Finnie,*

Camp, Aroopocottah, N. M. (banga)
18 March 1848.

Cotton Planter.

To Messrs. *Arbuthnot & Co.*, Madras.

Gentlemen,

As you are deeply interested in the improvement of the cotton of this part of the country, and have manifested that interest by making an effort to introduce the gin, I have great pleasure in availing of my official privilege to communicate to you the result of one day's ginning operations. The expense of the day's work only is calculated in the statement, and the cost of machinery, house, superintendence, &c. &c. is excluded from the account.

From this statement it appears to me utterly impracticable to use the gin in cleaning cotton as a mercantile transaction, and I maintain, that until we succeed as merchants, we really fail to accomplish the object aimed at, and the only means I see of materially altering the result here exhibited is by constructing machines that will do more work at less expense.

It may be urged that the trial was on so small a scale as to preclude the possibility of collecting data sufficiently accurate to determine what might be done on a large scale. The work and the expense of the day was conducted and disbursed under my own eye with greater celerity and economy than the people would observe as our servants, when left to themselves, and I have arrived at a most unhappy conclusion, when it is considered that my interests depend upon a statement exhibiting success in glaring colours, which conclusion is, that the larger the scale of business the greater the loss we must sustain. However, as I am not fully aware of all the commercial advantages to be derived from transactions here, I submit the statement to you with a view of eliciting your opinion on the subject.

I make this communication to you overtly, yet I wish it confined to yourselves; my peculiar, and perhaps unfortunate views are well known to Government, but in the present state of the public mind, supported as it is by visionary philosophers and dogmatic devotees of science, it would be very unpopular to express publicly at this time the result of my hard-earned experience and demonstrative conclusion as to the best mode of developing the resources of this country.

Palamcottah, (signed) *T. J. Finnie.*
26 August 1847.

To *T. J. Finnie, Esq.*, Courtallum.

Sir,

WE were favoured in due course with your letter of the 26th ultimo, and we have to thank you for communicating the very interesting information it conveys. Reluctant as we are to come to the same conclusion which you have arrived at after so much careful investigation, we fear we cannot avoid doing so. We trust, however, that a machine may yet be constructed which will clean the cotton in an equally efficient manner and at less cost. We are quite confident that so long as you are employed in your present situation, your best exertion will be directed to effect this very desirable object.

Madras, 17 September 1847. (signed) *Arbuthnot & Co.*

II.
Madras.

TABULAR STATEMENT, showing the Quantity of Seed Cotton cleaned in a Day by One Thrasher and Three Gins, Two of 25 Saws each and One of 20 Saws; the Per-centage and Quantity of Clean Cotton from a given Quantity of Seed Cotton, and the Amount and Per-centage of Waste; the Cost of Seed Cotton, Cost of separating the Seed from the Fibre, and Total Cost per Candy of clean Cotton, in Rupees, and Cost per lb. in English Money.

Gins.	Number of Saws.	Time required to Clean 100 lbs. of Seed Cotton.	Seed Cotton in lbs. Ayerduipois.	Cleaned Cotton in the lb.	Ditto Per-centage.	Seed in lbs.	Ditto Per-centage.	Loss and Trash from Thrasher in lbs.	Ditto Per-centage.	Loss and Trash under the Gin in lbs.	Ditto Per-centage.	Loss and Trash, and small Particles of Cotton in Flue, in lbs.	Ditto Per-centage.	Imperceptible Loss in lbs.	Ditto Per-centage.	Total in lbs.	Total Per-centage.
No. 1	25	hrs. m.															
„ 2	25	2 7	1,700	870½	21.81	1,280½	75.33	20½	1.73	18	1.06	1	0.06	1	0.11	1,700	100
„ 3	20	about 1 hour.															

Cost for Seed Cotton of Six Pod-hees, at Rs. 7. 10. per Podhee.	Cost of Labour for Ginning, or separating the Seed from the Cotton.	Cost of Cloth, Sewing, Packing, Twine, and Oil for Gins.	Total Cost of 1,700 lbs. of Seed Cotton.	Deduct Amount realised for Seed, at Rs. 1. 6. per Podhees.	Net Cost of 370½ lbs. of Clean Cotton, exclusive of Establishment and Superintendence.	Rate per Candy of 500 lbs. of Cotton, after deducting Amount realised for Seed.	Net Cost per lb. of Clean Cotton.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	£. s. d.
45 12 -	7 9 6	2 7 6	55 13 -	7 15 -	47 14 -	64 9 -	- - 3½
							(49½/500)

Camp, Aroopocottah,
28 July 1847.

(signed) Thomas James Finnie, Cotton Planter.

From T. J. Finnie, Esq., Cotton Planter, to E. B. Thomas, Esq., Collector, Tinnevely.

Sir,

IN my report I represented the great importance of having presses to force the cotton into a smaller compass than the people find it possible to do unaided by the mechanic powers; and now that I am getting fine clean cotton I find the elasticity is so great the common cloth in which it is packed is not strong enough to contain it, and the tearing of the cloth, and the exposure of the cotton and the trash it collects, and the loss sustained, has all combined to induce me to invent a simple press, which, I think, will answer the purpose well. I send a rough sketch of the compound lever press, and I have the honour to request you will be good enough to obtain the sanction of Government to have one constructed in the arsenal; I would have it done here on my own responsibility, but I have no wood and no carpenters nor smiths. The press is simple and small and the cost will be trivial, and if it will answer well it will save the expense of screws such as I contemplated when I wrote the report.

2. I hope all practicable celerity will be observed in the transmission and the sanction of the press, for I wish to try it on the cotton we are now purchasing.

3. The compound lever press, as shown in the drawing, consists of two uprights securely set in masonry, with a cross-beam at the top, to which is suspended a large moveable beam, and which slides on the uprights and is forced down by the levers, acted on by men, in haste,

haste, or by weights, if expedition is not required. The box between the uprights is the receptacle of the loose cotton. The sides of the box are fixtures, but the ends are moveable, and consist of pieces of plank, which are taken out as the beam descends between the sides. The lower part of the box represents a pressed bale; the levers are light and moveable; the bolts in the uprights act as fulcrums; the beam is drawn to its place, as represented, by pulley-blocks.

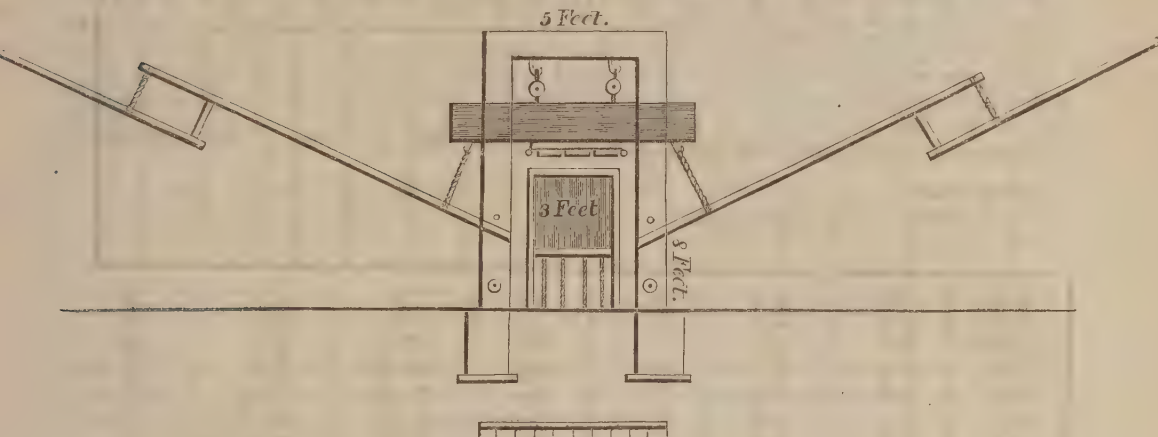
4. The simplicity and portability of the press will, I think, suit the people well to press their bundles of cotton of 120 lbs. to a much smaller and more convenient compass.

Camp, Aroopocotta,
31 May 1848.

(signed)

T. J. Finnie,
Cotton Planter.

COMPOUND LEVER COTTON PRESS.



Scale 5 feet to the inch.

(signed)

T. J. Finnie,
Cotton Planter.

Camp Aroopocotta,
30 May 1848.

(No. 260.)

From E. B. Thomas, Esq., Collector, to the Secretary to Government, Fort St. George.

Sir,

Para. 1. I HAVE the honour to forward copy of a letter from Mr. Finnie, cotton planter, dated 25th October last.

2. With reference to Mr. Finnie's 2d and 3d paras., he is now engaged in preparing a simple press for native use, which I hope will be found of some benefit. On this and other points he has been in personal communication with me, and using his best endeavours to carry out the experiments desired and ordered by Government.

3. Adverting to para. 5 of his letter, I have already explained, under date the 9th instant, (in my reply to the Extract from the Minutes of Consultation, under date the 28th ultimo), that I inadvertently named the gin, instead of the "gin machinery," and that it is now in the master attendant's safe custody at Tutacorin; the delay in its setting up not being Mr. Finnie's fault, but the impossibility of getting the gin-house earlier completed.

4. While constructing the gin-house under the orders of Government, I am constrained to repeat, as I have already expressed, my conviction that the American saw-gin is unsuited to Indian cotton; that it cuts and injures the fibre in cleaning; and that the old churka, or some modification or adaptation of it, as now tried in Bengal, will alone turn out clean, uninjured cotton wool. In this I believe I have Mr. Finnie's concurrence, though Dr. Wight seems still to uphold the saw-gins.

5. That much dirty cotton does find its way, as Mr. Finnie declares, to market, is doubtless true; and I fear it will be a work of labour and perseverance to make it otherwise. That it is a part of a "systematic intent," to the extent asserted by Mr. Finnie, I can hardly think.

6. I agree with Mr. Finnie in para. 11, that a Government experiment alone will not accomplish the objects desired; but that the more of private European capital, skill, and enterprise can be included in the work the better.

8. With reference to 15th and 16th paras., it is not to be supposed that Mr. Finnie can purchase cotton as cheaply in Tinnevely, under the competition of the agents and merchants at Tutacurin, as Dr. Wight may be able at Coimbatore, where there is probably little or no competition; where Mr. Finnie has refrained from purchasing, I believe it has been under a sound discretion, and with a desire to save the Government funds.

Tinnevely, 11 December 1848. (signed) E. B. Thomas, Collector.

Sir,

2. Having had the pleasure of a personal conference with you on the important subject of which these documents respectively treat, it is solely with a view of placing on record, for the information of Government, the explanations I rendered to you personally, and which, I hope and believe, were satisfactory, that I deem a reply essential. I shall endeavour to be as brief as the nature of the subject admits.

4. The people will never purchase such things for themselves, and I think that the itinerant plan you propose for the presses and thrashers will be found not to answer expectation. The parties, whether Government, or individuals, or companies of merchants, desiring improvement, must furnish the means of effecting it; if they change the people's mode, when they cease to supply the means, the native will soon relapse into his own mode, and, in my humble opinion, unless the business is established on a firm basis by the merchants and manufacturers, our efforts are vain. My proposition was made with a view of seeing merchants take up and continue that which Government can only commence.

6. With all deference to your superior knowledge, experience, and observation, I am constrained to reiterate the incontrovertible fact, that the dirty condition of the cotton shipped from India generally, is the result of deliberate "design, and systematic" admixture of qualities.* I assert this from actual knowledge, from observation, and the admission of the parties

* See my letter of 23d September, 1848, accompanied by one of 12th April 1848.

parties who engage in the work. That the agents now at Tutacorin are anxious to secure good cotton, and that they purchase "as good as they can get," I admit; but they are completely in the hands of the chitties, and they use no means among the people to insure a clean article; and allow me to ask if they succeed in procuring such a quality as the manufacturers require, or such as is expected from the experiments which have been so extensively, and expensively, and liberally instituted? I maintain that they do not, nor is it the necessary object of the exporting agents to export a superior article; their object is gain; and if a dirty article answers their purpose, which it does, they purchase it, and save their exchange, and fulfil the orders from their constituents; their object is effected, and they give themselves but little or no trouble about the quality, further than to procure as good as they can get of that which is taken to the port by the chitties, after admixture,* at a rate that best suits their purpose. The agents are usually limited to a very low price in consideration of the dirty condition of the Indian cotton; and if the best article in market can be procured for that price they take it, but if not, they take "the best they can get at the price to which their constituents limit them." There is a great difficulty in procuring large quantities of the well-cleaned, unmixed article, when there is a demand for the common article from the agents through the chitties, for, notwithstanding the price I give, all the churka-house men, or brokers, who had orders from the chitties, cease cleaning cotton for me, but as soon as the market becomes dull they recommence cleaning for me on the system I have enforced among them; and as long as there is such a demand for the dirty article, we cannot make rapid progress in habituating the people to care and attention to the great desideratum, viz., freedom from trash and other impurities.

7. I have frequently alluded to the chitties in rather disparaging terms, and I must do them the justice to say, that since I have become more acquainted with them, I find them not only straightforward business men, but men of intelligence and great wealth. I have often upbraided them for sending such dirty cotton to the European agents, and their invariable answer is, that if they are paid for a good article they will deliver it, but that the agency houses in Madras and Ceylon screw them to the lowest possible price, and they are compelled, in self defence, to give an article to suit the price they receive; and they do not hesitate to acknowledge that that article is made by the due admixture of qualities. These are facts as demonstrative as that $2 \times 2 = 4$; and I challenge contradiction.

8. I shall place before Government "full details as to prices, quality and quantity, &c.," as soon as a shipment is made to enable me to procure the essential data in reference to pressing and shipping charges.

9. I certainly never intended to assert that there is not a market for Tinnevely cotton, for, in my report of the 26th January 1846, I represented the existence of a market to the extent of rupees (25,00,000) twenty-five lacs. That there is a market, and that cotton finds a ready sale I am well aware, and I am fully informed of the quantity and quality of the cotton shipped to England, but that does not in the least militate against my argument; what I have said on the subject was written, advisedly, and I must maintain the correctness of my reports until facts are placed before me that will convince me of error; then, and not till then, can I yield. I feel sure that the premises which serve as the basis of my remarks are in the main correct; however imperfectly I may have drawn the conclusion, I still maintain that there is no abiding market for well-cleaned cotton. The people are not encouraged to take that care which the intrinsic value of the article deserves, for they find that they cannot realise a price for the superior qualities in proportion to the trouble and expense incurred in preparing it, and they find it more advantageous to prepare and sell the dirty article than the finer qualities, and they consequently attend almost exclusively to the former. There is a difference in qualities I know, but that the best usually shipped from the district is not as good as it might be made is a well established fact with all engaged in the business.

10. I quite concur with you that the growth of better kinds of cotton, and care in cleanliness, &c., are the main points, and the very points I have ever aimed at, and I am glad to hear that the very plan I have recommended and urged for seven years has been adopted by a highly respectable firm, viz., encouraging the ryots themselves to cultivate. I wish the enterprise success; but "light waste land" is not that which a planter would have selected for the purpose, whatever a merchant may do.

11. What I meant by the co-operation and organised system is, simply that until private capitalists engage heartily in the cause of improvement, and encourage the people to clean the cotton properly, the improvement will never be effected. Let Government, alone, do what it will, and expend as much money as it can afford; as soon as it abandons the enterprise, not a vestige of the efforts made, will be perceptible a year afterwards, but if the merchants and manufacturers of England will now second the efforts made by Government, the people, whose interests it is to attend to cleaning cotton, will soon fall into the desired mode of doing the work. I should be glad to see Government in a position to cease all operations in the matter, and it has been my object to induce private enterprise to engage in the business, that

* The mixing is done by the brokers, who are screwed by the chitties, as the chitties are by the agents, to keep even with the limits fixed by the constituents of the latter.

that Government connexion with it might cease as soon as possible, but the apathy manifested on the subject by Europeans is astonishing. To urge Government to measures in which they will take no part seems to be the principle acted on. Let the manufacturers and merchants of England employ their own agents to supply them with such cotton as they require, and the tide of improvement would soon spread over the country, and to save them from risk, at first I will gladly fulfil their orders free of the usual commission as long as I am paid by Government, for I am tired of doing nothing, which I may say of the little work required by Government; I am well paid, and if I am well employed I shall be content and happy here. My humble opinion is, that the province of Government is merely to prove the thing practicable, and then say to those who have urged, and continue to urge, extensive operations for the improvement of cotton, "Now, gentlemen, we have shown you the way, and we are still willing to direct you a right preparatory to leaving you to the full development of the plans which have proved successful;" and the means by which success is attainable is sufficiently evident to me, and if the merchants and manufacturers will not then engage in the business and encourage the people to improve their cotton, they can have no further complaint; and all operations in cotton as a Government measure should cease as a useless expenditure of money. I make these remarks in candour and fairness.

12. My plans in cleaning* and planting cotton are being developed to my entire satisfaction, as it regards the former, and as well as the climate will admit in reference to the latter, at but little expense to Government, and I trust I shall be able to pursue my course until I can decide to the satisfaction of the world the practicability or otherwise of the experiment in which so many primary interests are involved. I require and solicit your powerful aid, but let me earnestly request that before you represent to Government your dissent from the views I express, you will kindly ascertain how far we really differ after a careful analysis of the spirit of our letters respectively. I cannot find that we differ on any material point, and the little difference might well be conceded by either without affecting in the least the welfare of the business. The cotton is not now what we wish it to be, and whether it is from "design" or accident the result is the same; we must find out the error, and correct it. If I at any time seem to disregard the opinions of others, I trust you will believe it is not from an overweening estimate of my own on a slight and superficial view of the subject, but after years of study among the ryots in the cotton fields and churka houses. I do not pretend to say that the conclusion at which I have arrived is infallible, and all that I ask to induce me to yield to the superior abilities and judgment of others is a conviction of error. I shall be happy to consult with you at all times and on all occasions on matters of importance, and I hope I shall ever find from you that cordial co-operation which is essential to success, as well as conducive to the mutual good understanding and consequent happiness of the parties engaged in any business. I hope you will visit the scene of my operations and observe for yourself, and for the information of Government, the mode I have adopted for the effectual trial and decision of the experiment which has been so long in operation, with so little satisfaction in the general results.

13. You are aware that the delay in sending this letter is in consequence of a severe attack of illness.

14. Permit me now to make some remarks on the extract from Dr. Wight's letter, and at the risk of prolixity I must enter upon a minute history of the circumstances connected with my operations.

15. As is remarked in the Minutes of Consultation, I was instructed to afford Dr. Wight all the aid I could, and I have done so to the best of my ability, with the means I had at my command. In 1846, I received three small gins between May and the beginning of August, in the midst of the cotton-cleaning season; the machines were available, but not a house in which to erect them, and of course I could afford Dr. Wight no aid in ginning cotton. Besides, my object was to induce the people to engage in the business, and two zemindars were induced to take gins, and I erected them temporarily in houses not at all adapted for the purpose. I hoped the zemindars would clean their cotton in that way, and I agreed to take it at a fair rate. But on trial the gins were found so expensive, that they did not use them to any extent, and nothing was done in that season to aid Dr. Wight in ginning; I, however, marched about the country, and became acquainted with its resources and wants, and believing as I do, that to succeed we must work cheaply, I tried to find a native house in which to erect the gins for the next season, but not one was available. I then proposed to erect a cheap one† at this place, but there were so many to be consulted, all of whom differed in opinion, and so much correspondence was essential in so simple a matter, that the time passed, and no house was erected; but before the commencement of the cotton season of 1847, I had become more acquainted with the people of this place, and I succeeded in procuring the only house here that was at all suitable for the erection of the gins, and that required alterations, which I effected, and erected the gins, and was prepared at the commencement of the cotton season to work them vigorously, but found it impossible to procure good seed cotton at all, and the inferior at a very high and ruinous rate, the

* I do not mean ginning, though that is going on vigorously.

† See my letter, dated 1st December 1846.

people supposing that I should be compelled to yield to their demands rather than remain here on heavy expenses doing nothing; but I took a stand and would not yield, and in August 1847, after purchasing only a few hundred rupees' worth of cotton I shut up the gin-house and left the place, hoping that the holders of the cotton would induce me to return, by consenting to take a reasonable price for the seed cotton, but they did not yield, and but little ginning was done in 1847. If I erred in not purchasing, I alone am responsible; for I had money in my hands, and was uncontrolled. It required all my firmness to resist purchasing, but my sense of right and wrong prevailed over the éclat I might acquire by making a prodigious effort to add a couple of hundred bales to Dr. Wight's stock of ginned cotton, which I must have obtained at a rate that would effectually have prevented future operations on mercantile principles, with due regard to the profit and loss account.

16. The same scheme on the part of the people was tried at the commencement of this season, and up to the end of July I was unable to keep the gins at work, and finding that large purchases of the churka-cleaned article was not required by Government I left the place for Tinnevely, which had the effect of supplying the gins with cotton, and they have been kept constantly running ever since the 12th July under the superintendence of the writer, a Daivanaigum chitty, to whom I give great credit for the manner in which he has conducted the business. The seed cotton now continues to come in sufficient quantity to keep the gins going, and a quantity of good churka-cleaned cotton has been received from those who had undertaken to clean it, and I shall, in compliance with the instructions contained in the Minute of Consultation, communicate to Dr. Wight the extent of the aid I can render him in supplying the cotton ordered for shipment to England.

17. I have entered minutely into the causes which have prevented me from aiding Dr. Wight as much as he and the Government seem to expect, and I hope the explanation will be satisfactory to Government.

18. Dr. Wight remarks that the Honourable Court's orders were, in the first place, distinctly limited to gin-cleaned cotton, and therefore "he infers that the Indian Government is not authorised to send churka-cleaned cotton purchased in the local markets;" be that as it may, the shaft aimed at my proceedings falls harmless to the ground, for the churka-cleaned cotton which I have procured was "not purchased in the local markets," but cleaned by the churka people under my own superintendence, and that of my establishment. The cotton was of precisely the same quality as that which I was ginning, and where is the difference of employing the people who have the houses and all the conveniences for the work, or doing it myself with hired labour, without a single house or any one of the conveniences essential to the performance of the work? The difference is, that the first is accomplished with facility, and the latter is wholly impracticable. Can a merchant build churka houses and purchase seed cotton, and superintend the cleaning of it at a profit? I assert that he cannot. Can a merchant by such a course procure the article in sufficient quantity to carry on trade? He cannot. Can any body but a powerful Government, with unlimited resources and regardless of loss, and a Hindoo whose expenses are limited to a few annas a day, and who is content with very small profits, engage in such a tedious process? I assert that no one else can. Where then is the benefit, the practical and scientific utility of such a course of procedure on the part of the former when the latter is at hand, and only requires encouragement from the merchants and manufacturers to perform the work over the length and breadth of the land.

(signed) T. J. Finnie,
Cotton Planter.

Aroépocotta, 25 October 1848.

(No. 33.)

From F. B. Elton, Esq., Acting Collector, to J. F. Thomas, Esq., Chief Secretary to Government, Fort St. George.

Sir, I beg to inform you that I have the honour to forward to you the enclosed original letter from Mr. Finnie, cotton planter, pointing out the necessity of procuring 10 good pairs of bullocks for keeping the cotton-ginning machinery regularly at work.

Para. 1. I HAVE the honour to forward for the consideration and orders of Government the enclosed original letter from Mr. Finnie, cotton planter, pointing out the necessity of procuring 10 good pairs of bullocks for keeping the cotton-ginning machinery regularly at work.

2. I take this opportunity of stating that the gin-house, at Shevacausey, is progressing well, and likely to be soon completed, and that, at Mr. Finnie's request, I am now making arrangements to have the machinery, purchased by Government at Jaffna, removed from Tutacorin to Shevacausey.

3. I beg to suggest, if Mr. Finnie's proposition is approved of, whether the bullocks had not better be directed to be furnished through the Commissariat Department, whereby well-trained draught cattle likely to answer the purpose, might be at once procured, and a heavy outlay, estimated at 700 rupees as per margin,* avoided, for an employment of a temporary nature.

(signed) F. B. Elton,
Acting Collector.

Tinnevely, 8 February 1849.

* Ten pairs of bullocks at 70 rupees each, 700 rupees.

II.
Madras.

(No. 174.)

From *T. J. Finnie, Esq., Cotton Planter, to F. B. Elton, Esq., Acting Collector, Tinnevely.*
From C. J. Davis, Esq., Acting Collector to Government, Fort St. George.

Sir,

WITH reference to the Minutes of Consultation, No. 14, dated 2nd January, I have the honour to inform you that in order to carry out the experiment of ginning cotton with cattle, as well as manual labour, 10 good pair of bullocks will be required to keep the machinery regularly at work. Four pair work at a time, and they are changed every three or four hours, and we must have some extra bullocks to relieve the sick, the ill-trained.

2. We cannot depend upon hiring bullocks for the purpose; the people have use for their cattle, and could not hire them to us regularly, and as the work is peculiar the cattle must be broken to it, and if we attempt to hire them we shall not always be able to get the same, and we shall constantly have unbroken animals that will retard the work.

3. I beg respectfully to remind Government that I pointed out all these contingencies long ago, and tried my best to save my employers from a heavy expense in the machinery, and its essential concomitants; but my proposition being overruled by the influence of others, a heavy and useless expenditure is entailed on the cotton experiment under my management.

4. If I can aid you in procuring the bullocks I shall be happy to do so.
 Aroopocotta, 2 February 1849. *T. J. Finnie,*
(signed) Cotton Planter.

Revenue Department. (No. 211.)
 Extract from the Minutes of Consultation, under date the 27th February 1849.

Read the following letter:
 Forwarding, for the orders of Government, the enclosed original letter from Mr. Finnie, cotton planter, pointing out the necessity of procuring 10 good pairs of bullocks, for keeping the cotton-ginning machinery regularly at work.

[Here enter 8th February 1849, No. 33.]
 The Government having in Extract Minute of Consultation, 8th July 1847, resolved to adopt Mr. Finnie's proposition to erect cattle machinery at one end of the gin-house, and have gins at the other, so that the relative advantages of the two systems be fairly tested, and Mr. Finnie having now stated that he requires cattle, in order to carry out the experiment at Aroopocottah, where it is presumed the new gin-house is nearly completed, and having expressed doubts of being able to make the hired bullocks of the country available, the Governor in Council resolves to direct the Commissary-General, to whom copies of the Collector and Mr. Finnie's letters will be sent, to place temporarily at the disposal of the Collector of Tinnevely, for employment at Aroopocottah, 10 good pairs of bullocks, with drivers, as the Government think it inexpedient to incur the expense of purchasing fresh cattle for this express purpose.

Mr. Finnie will report, through the Collector of Tinnevely, the progress of his experiments, and will charge in his accounts any expense attending the keep and care of the commissariat bullocks.
(signed) H. C. Montgomery,
 Secretary to Government.

(No. 67.)
 From Colonel *A. Tulloch, C.B., Commissary-General, to J. F. Thomas, Esq., Chief Secretary to Government, Fort St. George.*

Sir,

No. 211, 27th Feb.
 849.
 Revenue Department.

WITH reference to Extract from the Minutes of Consultation, I have the honour to state, for the information of the Right Honourable the Governor in Council, that 20 draught bullocks of the Public Department were despatched from Hoonsoor to Tinnevely on the 4th instant, for the purpose of being placed temporarily at the disposal of the Collector of that district, for employment under the Cotton Planter at Aroopocottah.

Commissary-General's Office, Madras,
 24 April 1849.

(signed) A. Tulloch, Colonel,
 Commissary-General.

* Cost to separate the seed from a ready of cleaned cotton. Hand-gin by hired labour Rs. 10.3.10; hand-gin by contract Rs. 6.14.4; cattle-machinery Rs. 8.13.6; hand-gin by contract Rs. 4.14.8.

(No. 189.)
From C. J. Bird, Esq., Acting Collector, to the Secretary to Government, Fort St. George.

Sir,

With reference to para. 2 of the Extract from the Minutes of Consultation, under date 3 September 1849, No. 839, I have the honour to enclose copy of a report dated 11th instant, furnished by Mr. Finnie, on the subject of the comparative advantages of cotton-gins worked by cattle and by hand.

Tinnevely, Poodoocoddy.

15 September 1849.

I have, &c.
(signed) C. J. Bird,

Acting Collector.

(No. 174.)
From T. J. Finnie, Esq., Cotton Planter, to C. J. Bird, Esq., Acting Collector, Tinnevely.

Sir,

I have the honour to acknowledge the receipt of your letter, No. 1132, dated 8th instant, enclosing Extract from the Minutes of Consultation, dated 24th ultimo, calling for a report on the result of working the gins in juxtaposition, manual labour *versus* cattle power.

2. The gins that are moved by hand have not been erected at Sevacasuey, in the opposite end of the gin-house to that occupied by the cattle machinery, for reasons that will be manifested from the perusal of the accompanying correspondence between Dr. Wight and myself on the subject. It was no part of my plan to break up the establishment I had got up at Aroopocotta, but rather to keep that, and erect other gins at Sevacasuey, that the two great cotton marts of this part of the country might have the benefit of a full and fair trial in ginning cotton. I applied for the hand-gins, but they were not sent to me; if they had arrived, I should have taken pleasure in fixing them in their places, and have had the satisfaction of leaving the gin-house in complete working order in both places. I trust I have given satisfactory reasons for the incompleteness of the plan, as originally contemplated by me.

3. I can give the relative costs of each plan of separating the seed* from the fibre, and I subjoin a table which will show Government that the hand-gin, even by contract, is more expensive, exclusive of original outlay, wear and tear, &c., than the churka, and that the cattle machinery, as necessarily conducted by Government or merchants, is much more expensive than the hand-gin, and if the calculation was made for the whole year, the cattle machinery will be found infinitely more expensive, for the cattle and drivers must be kept up constantly, though no work is going on. If the people would adopt the plan, and use their bullocks to make the crop, and then to separate the seed from it, they would make it less expensive, but then the capital invested in the establishment would be enough to require the whole fortune of several cotton dealers. I shall not repeat the arguments so often advanced, to show that the gin is a fallacy; but I must here bear my humble testimony, that all that Government can do, has been done to improve the cotton of this part of the country where the climate is unsuited to the American cotton, and the American gin is unsuited to the constitution of the people of this country. But I repeat that there is a large extent of country in Her Britannic Majesty's dominions, that will produce the American cotton well, but this is not the place to dwell on the subject.

4. I may here remark, that I think where a merchant has to keep up an establishment, at any rate to attend to the cotton branch of this business, he might take the ginning establishments in hand without payment, and might succeed in time in inducing the people to resort to that mode of separating the seed from the cotton, that he (the merchant) might require; but the work must be left in the hands of the people. But I think that the same efforts to insure cleanness by the means already in the hands of the people, would prove more effectual.

† Sic.

I have, &c.
(signed) T. J. Finnie,
Cotton Planter.

With reference to Extract from the Minutes of Consultation, I have the honour to state the information of the Right Honourable the Governor in Council, that 20 draught bullocks of the Public Department were despatched from Honnour to Tinnevely, on the 20th inst., under the Cotton gin, at Aroopocotta.

"I HAVE the honour to request you will be good enough to dispatch the gins, intended for the new gin-house at Sevacasuey, to that place as soon as practicable."

* Cost to separate the seed from a candy of cleaned cotton. Hand-gin by hired labour, Rs. 10. 3. 10.; hand-gin, by contract, Rs. 6. 14. 4.; cattle machinery, Rs. 8. 13. 6.; churka, Rs. 4. 14. 8.

EXTRACT from a Letter from Surgeon *R. Wight* to me, dated 8 February 1849.

"I HAVE the honour to acknowledge the receipt of your letter of 2d instant, requesting me to send the two gins for your gin-house as speedily as practicable. They still require to be painted, which will take up about a week. In the interval, have the goodness to let me know whether the house is actually ready for their reception, or that you require them with reference to their measurements. If the former, I could send along with them, if required, a passably good carpenter, who has been long in our service, to assist you in setting them and seeing that they work the same as they have done here: in case the house is not ready, but measurements required, the following are the dimensions."

EXTRACT from my Letter to Surgeon *R. Wight*, dated Aroopocotta, 13 February 1849.

"I HAVE the honour to acknowledge the receipt of your letter of the 8th instant. The gin-house is not actually ready for the reception of the gins, and I applied for them to give you time to make your arrangements for their dispatch at your convenience. "I was under the impression that you were also to supply three small gins to be worked by manual labour. It seems from your letter under reply, that you have only prepared the two intended to be worked by the cattle machinery. Am I to break up the ginning establishment here and remove the gins to Sevacasuey, and erect them there? I think it would be better to allow these to remain here, and put others into the new house, if you have them ready, or can get them ready during the next three months, for the people will not sell their seed cotton till about that time. To break up here now and remove to a new place, will in effect undo all that we have commenced here."

EXTRACT from a Letter from Surgeon *R. Wight* to me, dated 19 February 1849.

"I HAVE the honour to acknowledge the receipt of your letter of the 13th instant. I believe I shall find no difficulty in supplying you with the three hand-gins you require for Sevacasuey within the time you mentioned, so that there can be no necessity for breaking up your present establishment so long as you can keep them both going."

(True extract.)

(signed) *T. J. Finnie,*
Cotton Planter.

COPY of my Letter to Surgeon *R. Wight*, dated Aroopocotta, 2 April 1849.

With reference to the last para. of your letter, dated 19 February, I have the honour to inform you that I am now ready for the gins, and having addressed you a note from Oolundoorpett, mentioning the 1st of April as the time I should be at my station, I hope the gins, and artificer and carpenter whom you kindly engaged to assist me are near at hand, and I doubt not that they will all arrive in due time. I shall proceed to Sevacasuey in a few days.

(True copy.)

(signed) *T. J. Finnie,*
Cotton Planter.

EXTRACT from a Letter from Surgeon *R. Wight* to me, dated Coimbatore, 28 March 1849.

"I HAVE the honour to inform you of the dispatch this day of three Government carts with two 60-saw saw gins, and two flues, in charge of the man mentioned in the margin, to be delivered at Sevacasuey."

(True extract.)

(signed) *T. J. Finnie,*
Cotton Planter.

From Surgeon *R. Wight*, Superintendent Cotton Farms, Coimbatore, to Sir *H. C. Montgomery*, Bart., Secretary to Government, Fort St. George.

Sir, With reference to para. 9 of Minutes of Consultation, No. 814, under date 27th July 1848, I have the honour to subjoin extracts from a letter just received from Mr. Finnie, in reply to one from myself, reminding him that he had not furnished the information ordered.

2. It appears from his letter, that the cause of the "American gin" still remaining in Tutacorin, does not rest with Mr. Finnie, but is solely attributable to the executive department of the district failing to provide the accommodation required for setting up the machinery.

So far as matters have yet gone, it would appear no harm has been done, as I learn from an official communication from Mr. Finnie, that up to the 23d August 1848 he had only purchased about 600 rupees worth of cotton, and grown none. But now he informs me he is enabled to procure cotton to keep both his gins and churkas at work, in which case it seems desirable to run up a house for its reception. The gins to be worked by it have long been ready, and are lumbering us. I have not now the plan before me, but judging from the fact that the roof is really the essential part of the structure, and that the walls may be constructed in any way most convenient, this might, I think, be soon accomplished.

4. I am now simply to save the cost of carrying seed cotton to the gin-house to be ginned, and the seed back to the farms for sowing, erecting temporary gin-huts on the farms. These of a size fitted for the reception of two small hand-gins, built of earth, thatched, and the roof lined with cloth, cost about 30 rupees, and will, I expect, save on a moderate crop from 60 to 80 bandy trips of full 20 miles each over in many parts very bad roads, causing a very heavy charge for tear and wear of cattle and carts.

5. A house might, I think, be constructed for the machinery in question of a somewhat more permanent description than my gin-huts; but still not costly, and quite as efficient for actual use as our large and costly gin-house in Coimbatore.

(signed) *Robt. Wight*, Surgeon,
Superintendent Cotton Farms.
Coimbatore, 3 November 1848.

EXTRACT of a Letter from *T. J. Finnie*, Esq., Cotton Planter, to Surgeon *R. Wight*, Superintendent Cotton Farms, Coimbatore; dated Aroopocotta, 26 October 1848.

Para. 1. I HAVE the honour to acknowledge the receipt of your letter, dated 17th October, 1848, and beg in reply to assure you that it has not been from a disregard to the orders of Government that I have not afforded the information which the Minute of Consultation you quote directed me to supply to you; but from inability to do so when I first received it, because I was absent from my office, and subsequently on my arrival here from a severe attack of illness, from which I have just recovered sufficiently to return to my duty, and as soon as possible I shall supply you with the information required.

Para. 4. In reference to the 9th para. of the Minutes of Consultation, I can only remark that "the American gin which is represented by Mr. Thomas's letter to be lying in pieces at Tutacarin useless ever since it was purchased, and rapidly going to decay," is no more nor less than the celebrated Ceylon machinery, which is stored as safely at Tutacarin as it can be anywhere, and which must remain useless until the executive erects the house for its reception. I hope this explanation will be satisfactory to you.

(signed) *T. J. Finnie*,
Cotton Planter.

(No. 1305.)

RESOLVED, that the Collector of Tinnevely be requested to report immediately what progress has been made in the erection of the gin-house at Sevacausey, for which Rs. 2,699. 0. 7. was sanctioned, under date the 4th October 1847, and to state further the cause of delay in its completion, and whether the machine referred to by Dr. Wight is in good preservation; likewise what means have been taken for its safe keeping.

(signed) *H. C. Montgomery*,
Fort St. George, 28 November 1848. Secretary to Government.

(No. 259.)

From *E. B. Thomas*, Esq., Collector, to Sir *H. C. Montgomery*, Bart., Secretary to Government, Fort St. George.

Sir,

Para. 1. WITH reference to the Resolution of Government annexed to the Extract from the Minutes of Consultation, under date the 28th ultimo, I have the honour to report for the information of Government, that the gin, or as I should more properly have called it in my former letter of 2d June last, the gin machinery (by which it is driven), is now in safe keeping, and in better order than I anticipated when I before saw it; it then appeared to me in a bad state. It has since been oiled, cleaned, and taken care of by Mr. Crawford, the master attendant, at Mr. Finnie's request, at Tutacarin, where I have just seen it.

II.
Madras.

2. The delay in the completion of the gin-house at Shevacausey, has been owing entirely to the difficulty of procuring timber, Shevacausey being distant from the hills, and involving considerable cost of carriage. Several attempts have been made by the Civil Engineer and myself to enter into contracts with various wood merchants; the last, after receiving 500 rupees advance, and procrastinating several months, eventually supplied such bad timber that it was unfit for a permanent public building, was obliged to be rejected by the Civil Engineer, and the 500 rupees collected again from the merchant; good timber has become scarce and dearer in Tinnevely, especially since the means taken to check its unrestricted cuttings.

3. The timber was at last procured with difficulty. The building is now progressing, and will be ready, I confidently hope, by the time it is required for ginning the coming cotton crop. The walls are up, with door and window frames, to nearly their full height, the cross beams and roof being the chief work remaining.

4. Several other large buildings being at the same time in course of construction, and timber very scarce in Tinnevely, have also concurred to increase the difficulty and delay in completing the gin-house.

(signed) E. B. Thomas, Collector.

Tinnevely, 9 December 1848.

Revenue Department, No. 147

Revenue Department, No. 147

EXTRACT from the Minutes of Consultation, under date 2 January 1849.

Read the following letters from the Collector of Tinnevely:

[Here enter 9th and 11th December 1848, Nos. 259 and 260.]

THE Right Honourable the Governor in Council learns from the foregoing letters that the American saw-gin, purchased at Jaffna in 1847, is properly stored in a place of security, and is not, as was supposed, from a passage in Mr. Thomas's letter of the 2d June 1848, and referred to in the enclosure of Dr. Wight's letter of the 3d November, "rapidly going to decay." The Government learn also that difficulties have occurred in obtaining timber for the gin-house at Aroopocottah of sufficient size. The building is, however, now represented by Mr. Thomas to be progressing, and is expected to be ready by the time it is required for ginning the coming cotton crop. Mr. Thomas expresses his conviction that the American saw-gin is unsuited to Indian cotton; that it cuts and injures the fibre in cleaning; and he adds his opinion that the old churka, with some modification, "will alone turn out clean, uninjured cotton wool." In this opinion he believes he has the concurrence of Mr. Finnie.

After the purchase, at considerable expense, of an American saw-gin, and when the ginning-house, according to Mr. Finnie's plan, has been so nearly completed, the Governor in Council thinks it would be unadvisable to abandon the proposed experiment with this machine at Aroopocottah, and he desires the acting collector of Tinnevely will use his best exertions in finishing the building there, so as to enable Mr. Finnie to erect the saw-gin and bring it into operation at the earliest possible period, and after fully and fairly testing the results, Mr. Finnie will make a report to Government through the collector of Tinnevely.

Ordered, that copy of the foregoing resolution be furnished to Dr. Wight, with reference to Extract Minutes of Consultation, under date 28th November 1848, No. 1305.

(signed) H. C. Montgomery,
Officiating Chief Secretary.

Revenue Department, 7 March (No. 2) 1849.

Our Governor in Council at Fort St. George.

Cottage Saw Gins.

1. WE transmit herewith a bill of lading for 12 cases, each containing two "cottage saw-gins" for cleaning cotton, which have been shipped to your Presidency on board the "La Belle," from Liverpool.

Dated 6 Oct. 1848.

2. We also forward to you copy of a report on these saw-gins, which has been submitted to us by Dr. Royle.*

3. We shall furnish you with a further supply of gins of a similar description, and we desire that you will inform us, as soon as practicable, of the degree of success that may be found to attend their operation.

4. A small

* See page 462 of Part. I (Bengal and North-western Provinces) of this Return.

4. A small number of these gins may be presented to natives as rewards for successful cotton cultivation in cases in which it may appear to you to be desirable to distribute them gratuitously; but we think that the ryots should rather be encouraged to purchase the machines, receiving them as tuccavy advances, and paying for them by instalments. We conceive that in this way the people will be more likely to value and take care of them, and that their introduction into general use, if found suitable for the purpose for which they are intended, will be promoted.

5. The cost of the gins, exclusive of charges for freight and carriage, will be about 37 each.

We are, &c.
(signed) J. L. Lushington,
A. Galloway,
&c. &c.

London, 7 March 1849.

Revenue Department, 14 March (No. 3) 1849.

Our Governor in Council at Fort St. George.

In continuation of our despatch of 7 March 1849, No. 2, we now transmit invoice of the cottage saw-gin shipped to your Presidency by the vessel "La Belle," and also copy of a memorandum by Mr. Petrie,* late engineer to the Cotton Experimental Establishment at Coimbatore, explanatory of the proper mode of setting the machines to work.

Cottage Saw Gins.

We are, &c.
(signed) J. L. Lushington,
A. Galloway,
&c. &c.

London, 14 March 1849.

From Surgeon R. Wight, Superintendent Cotton Farms, Coimbatore, to Sir H. C. Montgomery, Bart., Secretary to Government, Fort St. George.

Sir,

ADVERTING to Minutes of Consultation, No. 431, under date the 28th April 1849, I have the honour to state that I have given the subject the best consideration I am able, and think that under existing circumstances the plan submitted in the accompanying letter to the Secretary Marine Board the best that can for the present be adopted, the more so as I ascertained during my recent visit to Madras, that both Mr. Thompson, of the firm of Line & Co., and Mr. Campbell, of that of Binny & Co., have quantities of American cotton with which to test the value of the gins.

Having seen them in operation, the members will be better able to judge whether they think it desirable to purchase any of those left behind, with a view to establishing trials in parts of the country they may deem suitable for the purpose.

In writing to the Chairman of the Chamber of Commerce, I shall furnish him with the necessary instructions for setting and working them.

(signed) Robt. Wight, Surgeon,
Superintendent Cotton Farm.

Coimbatore, 13 June 1849.

COPY of a Letter from Surgeon R. Wight, Superintendent Cotton Farms, to the Secretary to the Marine Board.

1. ADVERTING to the subjoined para. of Minutes of Consultation, No. 431, under date 28 April 1849, in which I am directed to convey to the Marine Board instructions for the disposal of 12 cases of cotton saw-gins, I have the honour to state, that it occurs to me that the most suitable plan for their present disposal will be to send two cases to Coimbatore, and two to Sevacausey, consigned to Mr. Finnie. The remaining eight had better, I think, be for the present detained at Madras.

2. According to this arrangement, send cases C Nos. 1 & 4, to Coimbatore, and D Nos. 1 and 4, to Sevacausey.

3. As

* See page 469 of Part I. (Bengal and New Provinces) of this Return.

II.
Madras.

3. As it seems probable the mercantile community of Madras may wish to examine the working properties of these machines, I think it desirable to give them an opportunity of doing so, by opening one of the cases in Madras.

4. With this view, I have addressed the chairman of the Chamber, mentioning the circumstances, and authorising his applying to you for case C No. 4, to be opened and tried in presence of the Chamber before despatching it to Coimbatore.

5. In the event of his doing so, have the goodness to attend to his directions.

(signed) *R. Wight*, Surgeon,
Coimbatore, 13 June 1849. Superintendent Cotton Farms.

(No. 582.)

THE Right Honourable the Governor in Council approves of the proceeding reported in the foregoing letter.

(signed) *H. C. Montgomery*,
Fort St. George, 20 June 1849. Secretary to Government.

(No. 1152.)

From *J. R. Boyson*, Esq., Acting Secretary Marine Board, to *J. F. Thomas*, Esq.,
Chief Secretary to Government, Fort St. George.

Sir,

WITH reference to the orders of Government noted in the margin,* I have the honour, by desire of the Marine Board, to state, that on the arrival of the ship "La Belle," the 12 cases of cotton saw-gins marked as per margin, were duly landed from that vessel; that the two cases marked D, and numbered 1 and 4, were despatched in accordance with Dr. Wight's instructions, on the 22d of August, by cart, to the address of Mr. T. J. Finnie, at Sevacausey; that (pursuant to Dr. Wight's instructions), the case marked C No. 4, was forwarded to the Chairman of the Chamber of Commerce, and opened in my presence on the 21st of August; that on opening this case both the machines were found slightly damaged, and broken, apparently from insufficient package; that this case contained one machine entirely composed of iron, and a second in wooden frame-work; that I had the latter of these two machines repaired, and that the Chamber of Commerce have since tested and examined its working properties, and will shortly report their opinion as to the result. The remaining (9) nine cases are now in charge of the Master Attendant, awaiting Dr. Wight's instructions for their disposal. The damage to the machine (composed entirely of iron) taken out of case C No. 4, can be easily repaired in the arsenal, and the Board have written to Dr. Wight to ascertain whether they shall take the necessary steps for getting the repairs effected; also whether Dr. Wight would wish them to open the case C No. 1, before despatching it to Coimbatore, and have any repairs done that the machines contained in it may be found to require; and whether he (Dr. Wight) thinks it desirable that the same course should be adopted with reference to the other (9) nine cases, previous to disposing of them as he may hereafter direct.

Madras, Marine Board Office,
15 September 1849. (signed) *J. R. Boyson*,
Acting Secretary.

(No. 909.)

RESOLVED, that the foregoing letter be transmitted to the Military Board, with a request that they will take immediate measures for the repair of the iron cottage saw-gin, either at the arsenal or at the gun-carriage manufactory, and that the Marine Board be requested to put themselves in communication with the Military Board on the matter.

Fort St. George, (signed) *H. C. Montgomery*,
24 September 1849. Secretary to Government.

* Extract from Minutes of Consultation, 28 April 1849, No. 431. Order of Government, 20 June 1849. From Surgeon Wight, Superintendent Cotton Farms at Coimbatore, 13 June 1849. Extract from Minutes of Consultation, 7 September 1849, No. 852.

(No. 1228.)

II.
Madras.

From *J. R. Boyson*, Esq., Acting Secretary Marine Board, to *J. F. Thomas*, Esq., Chief Secretary to Government, Fort St. George.

Sir,

WITH reference to my letter of the 15th instant, No. 1152, and the orders of Government thereon, dated the 24th instant, and numbered 909, I have the honour, by desire of the Marine Board, to state that the iron cotton saw-gin therein mentioned was forwarded on the 25th instant to the Military Board, with a view to the necessary repairs being effected.

2. I am also directed to forward a copy of a letter received from the Collector of Coimbatore, dated the 21st instant, and to solicit the sanction of Government for transferring to the Military Board the nine cases of saw-gins now in charge of the Master Attendant, in order to their being opened, and their contents examined, and (if necessary) repaired and retained in the arsenal until after Dr. Wight has seen them.

Madras, Marine Board Office,
29 September 1849.

(signed) *J. R. Boyson*,
Acting Secretary.

From *E. B. Thomas*, Esq., Acting Principal Collector of Coimbatore, to *J. R. Boyson*, Esq., Acting Secretary to the Marine Board.

Sir,

DR. WIGHT having given over charge of the Government cotton farms, and being also unwell, has requested me to reply to your letter of the 13th instant, No. 1134.

2. Regarding the nine cases with the Master Attendant, I would beg to recommend their all being opened (as well as No. 1.), examined, and repaired, if necessary, as you have been so good as to do with same already at the arsenal, rather than risk the evil of sending them up country in an imperfect state.

3. As Dr. Wight hopes to be in Madras next month, I would suggest their being kept till he sees them. I would recommend that two only of the new saw-gins be despatched eventually to Coimbatore, and the others kept in the arsenal, for the decision of Government on future applications.

Coimbatore, 21 September 1849.

(signed) *E. B. Thomas*,
Acting Principal Collector.

(True copy.)
(signed) *J. R. Boyson*,
Acting Secretary Marine Board.

Revenue Department, No. 935.

EXTRACT from the Minutes of Consultation, under date 2 October 1849.

Read the following letter from the Acting Secretary to the Marine Board:

STATES that agreeably to the orders of Government of the 24th September 1849, the iron cotton saw-gin therein mentioned was forwarded to the Military Board, with a view to the necessary repairs being effected. Forwards copy letter from the Collector of Coimbatore, and solicits the sanction of Government for transferring to the Military Board the nine cases of saw-gins now in charge of the Master Attendant, in order to their being opened, and their contents examined, and if necessary, repaired and retained in the arsenal until after Dr. Wight has seen them.

[Here enter 29 September 1849, No. 1228.]

The Right honourable the Governor in Council authorises the transfer to the Military Board of the nine cases of saw-gins referred to in para. 2 of the foregoing letter.

With reference to Extract Minutes of Consultation, 28th August last, No. 811, the Governor in Council now desires that the Military Board will forward one of the saw-gins, ascertained on examination to be in good order, to the Tanjore district, for the purpose of being put up there under the direction of Captain Lawford, civil engineer of the 6th Division.

Resolved that a copy of the foregoing order be furnished to the Board of Revenue, with reference to Extract Minutes of Consultation, dated 28th August 1849, No. 811, in view to their making the necessary communication to the Collector of Tanjore.

(signed) *H. C. Montgomery*,
Secretary to Government.

II.
Madras.

(No. 203.)

From *C. J. Bird*, Esq., Acting Collector, to *Sir H. C. Montgomery*, Bart., Secretary to Government, Fort St. George.

Para. 1. I HAVE the honour to enclose for the information of Government extracts from Communications* received from Mr. Cuxton in charge of cotton-cleaning machinery at Sevacausey and Aroopocottah, reporting the arrival in a damaged state of four cottage gins, of which he thinks three may be restored to working condition, at a cost of about six rupees, while the fourth cannot, it seems, be repaired by any means within Mr. Cuxton's reach.

2. I have desired Mr. Cuxton to have the three gins, which he considers repairable, set up in the manner he describes, and to use his best endeavours to persuade persons having cotton to be cleaned to make trial of them.

3. Should it afterwards be found expedient, the injury suffered by the remaining cotton gin may perhaps be remedied by procuring a new wheel of cast iron from Port Novo, or elsewhere.

(signed) *C. J. Bird*

Acting Collector.

Tinnevely, Trichendoor,

October 1849.

EXTRACT from Mr. Cuxton's Letter to the Acting Collector, dated 18 September 1849.

"ON opening the cases and examining the gins (four in number) they were all found to be more or less injured; of two gins the cast-iron wheels on the cylinder carrying the saws were broken in pieces; the two other gins are less materially injured."

EXTRACT from Mr. Cuxton's Letter to the Acting Collector, dated 27 September 1849,

"IN reply to your memorial of the 21st instant, I beg to send you a plate, giving a view of the most particular side of a cottage saw-gin (eight of these plates were sent with the gins), and from which you will be able to understand the damage they have received. Of the four gins three have cast-iron frames, wheels, &c., and are panelled with wood. The fourth is built entirely of wood, with the exception of the wheels (marked A in the plate). Two of the three, with cast-iron frames, &c., have lost the wheel marked B, and the remaining one has been chipped off a piece of cast-iron, meant as a foot for the gin; but this I find will not affect the gin at all. The wood gin is also hurt in the wheels B and A. The broken cast-iron wheels may be replaced with wooden ones, with a brass bush in the centre, and will, I think, answer just as well. The cost of setting up these three gins will not come to more than about six rupees."

(True extracts.)

Tinnevely, Trichendoor,

1 October 1849.

(signed) *C. J. Bird*,

Acting Collector.

(No. 959.)

RESOLVED, that the Marine Board be requested to report whether the gins referred to in the foregoing letter were received broken, as described, from the ship in which they came from England, and if they were negligently packed. They will state to whom they attribute blame for their present condition.

Fort St. George,

9 October 1849.

(signed)

H. C. Montgomery,

Secretary to Government.

(No. 1296.)

From *J. R. Boyson*, Esq., Acting Secretary Marine Board, to *J. F. Thomas*, Esq., Chief Secretary to Government, Fort St. George.

Sir,

I HAVE the honour, by desire of the Marine Board, to state that the two cases containing the cottage saw-gins referred to in the order of Government, noted in the margin,† were

† 9 October 1849, in a letter from the Collector of Tinnevely, 1 October 1849.

were not opened at Madras previous to their dispatch to Mr. Finnie at Sevacausey, in accordance with Dr. Wight's instructions.

II.
Madras.

2. Judging from the report of their Acting Secretary on the case marked C No. 4, which was opened in his presence, and the machines minutely examined by him, the Board are of opinion, as expressed in their letter to Government of the 15th ultimo, No. 1152, that the damage sustained by the machines contained in this case (C No. 4) was attributable to insufficient package, and not to negligence on the part of the ship in which they came from England.

3. The damage sustained by the machines forwarded to Sevacausey appears from Mr. Cuxton's report to be nearly similar to the damage sustained by the machines in case C No. 4, and the Board are strongly of opinion that such damage is attributable to the cause before mentioned, viz., insufficient package.

4. The cases in which these machines have been forwarded to Madras are, in the Board's opinion, too slight; and assuming that all the cases received per "La Belle" are packed in similar manner with case C No. 4, due precaution does not seem to have been taken in securing the machines and preventing them from shifting by using battins. Each case contains two machines, merely protected from damaging each other by a small quantity of hay.

5. The Board consider that the damaged condition of the machines, in case C No. 4, was attributable to the packer, and judging from the report of Mr. Cuxton, and the result of their Acting Secretary's examination of case C No. 4, they also consider that the damaged condition of the machines forwarded to Sevacausey is attributable to the same party.

Madras, Marine Board Office, (signed) J. R. Boyson,
16 October 1849. Acting Secretary.

(No. 1015.)

ORDERED, that the foregoing letter be brought to the notice of the Honourable Court of Directors.

(signed) W. H. Bayley,
Fort St. George, Acting Secretary to Government.
24 October 1849.

(No. 1312.)

From J. J. Franklin, Esq., Secretary Marine Board, to J. F. Thomas, Esq., Chief Secretary to Government, Fort St. George.

Sir,

WITH reference to the orders contained in Extract from Minutes of Consultation,* marginally noted, I have the honour by desire of the Marine Board, to state that the twelve cases (each containing two cottage saw-gins) therein adverted to, have been landed from the barque "Ferris," and that the Acting Collector of Coimbatore has expressed a wish that all the gins should be examined at Madras; that four should then be sent to his district; four to Tinnevely; two to Tanjore, and the remainder be left at Madras for the future disposal of Government.

* No. 687, 21 July 1849.

2. As the cases in which these saw-gins are packed appeared to be of slight materials, a survey has been held on them, of which the proceedings are herewith forwarded, from which it will be seen that several have slightly burst open from the pressure of weighty articles inside. Should it prove on examination that any portions are injured, the same remarks will apply to this shipment as to that on board the "La Belle," namely, that the cause of damage must be attributed to improper packing, and not in any way from fault of stowage.

3. Government, in an Order in Council of the 2d instant, authorised the transfer to the Military Board of the nine cases of saw-gins which were brought out by "La Belle," in order that they might be examined, and if necessary, repaired at the arsenal. The Board having ascertained that no damage chargeable to the ship has occurred to those brought by the "Ferris," now solicit that the Military Board may be similarly instructed to receive these, and that after examination and repair they may be disposed of according to the wishes of the Acting Collector of Coimbatore, recorded in the latter part of the first para. of the present communication.

Madras, Marine Board Office, (signed) J. J. Franklin,
19 October 1849. Secretary.

+ Vide Board's letter to Government, 16 October 1849, No. 1296.

† Four to be sent to Coimbatore, four to Tinnevely, two to Tanjore, and the remainder to be kept at the arsenal pending the further orders of Government.

H.
Madras.

PROCEEDINGS of a Committee assembled at the Marine Yard Godown, to Examine and Report upon the Cases of Cotton Gins received from the ship "Ferris," agreeably to Minutes of Consultation, dated 9th July 1849:—

President:—R. H. Williamson, Esq., Deputy Collector of Sea Customs;

Members:—J. J. Franklin, Esq., Secretary Marine Board; Captain H. W. Gable, Acting Assistant Master Attendant.

The Committee having assembled, proceed to inspect the quantity and condition of the cases of Cotton Gins : Beach, 17 October 1849:

Description of Stores.	Quantity.
Cotton Gins - - - - -	Cases. 12
Marked I, 1 a' 4 cases	
„ K, 1 a' 4 cases	
„ L, 1 a' 4 cases	

The Acting Assistant Master Attendant having submitted to the Committee the cases of cotton gins received from Liverpool, on the ship "Ferris," on inspection several of the packing cases were found to be slightly burst, in consequence of their being too slight for the contents.

With this exception, the whole appear to be in good order.

(signed) R. H. Williamson,
Deputy Collector of Sea Customs.
J. J. Franklin,
Secretary Marine Board.
H. W. Gable,
Acting Assistant Master Attendant.

(No. 1057.)

THE Right honourable the Governor in Council authorises the transfer to the Military Board of the twelve cases of saw-gins landed from the barque "Ferris," in view to their examination and repair, and disposal afterwards in the manner indicated in the concluding para. of the foregoing letter.

Fort St. George, (signed) W. H. Bayley,
6 November 1849, Acting Secretary to Government.

(No. 1357.)

From J. J. Franklin, Esq., Secretary Marine Board, to J. F. Thomas, Esq., Chief Secretary to Government, Fort St. George.

Sir,

I HAVE the honour by desire of the Marine Board to forward for the information of Government a report from the Principal Commissary of Ordnance on the nine cases of cottage saw-gins, being a portion of a consignment of twelve, landed from the "La Belle," and transferred to the Military Board under the authority conveyed in Extract from Minutes of Consultation of the 2d ultimo, No. 935.

2. The Board's letter of the 16th ultimo, No. 1296, will have placed the Government in possession of their opinion as to the origin of the damage sustained by the machines, which has been occasioned from insufficient package.

Madras, (signed) J. J. Franklin,
Marine Board Office, Secretary.
8 November 1849.

(No. 75.)

II.
Madras.REPORT on the State of Nine Cases of Cottage Saw Gins, landed at Madras from the ship
"La Belle."

No. Arsenal, Fort St. George, 6 November 1849.

17. 3 axletrees and 1 hopper broken, 1 axletree bent, rusted by sea water.
18. 1 tube, 1 beam and hopper broken.
19. 1 saw wheel and 1 beam broken.
20. 3 beams broken, 1 cap and 1 axletree bent.
21. 3 beams and 1 hopper broken, and 1 axletree bent.
22. 1 wheel, 1 beam, and 1 hopper broken.
26. 1 saw wheel and 1 hopper broken, and 1 axletree bent.
27. 1 lug of the cap and 1 hopper broken, 1 axletree bent.
28. 1 body wrenched and generally out of order, rusted by sea water.
29. 1 hopper broken, 1 axletree bent, rusted by sea water.
31. 1 beam and 1 wheel broken, 1 axletree and 1 cap bent.
32. 1 beam, 1 wheel, and 1 hopper broken, and 1 axletree bent.
33. 1 large wheel and 1 beam broken.
34. 1 beam broken.
35. 1 wheel and 1 hopper broken, 1 axletree bent, much rusted by sea water.
36. 1 bed and 1 hopper broken, 1 axletree bent, much rusted by sea water.
37. 1 hopper broken and 1 pivot cap wrenched.
40. 1 large axletree much bent, wooden lining broken, saws out of order, and 1 lever wanting.

The whole of the gins require cleaning and regulating.

The extent of injury cannot be fully ascertained till the machines are taken asunder, when it may be found much more extensive,

(signed) *F. F. Whinyates*, Lt.-Col.
Principal Commissary of Ordnance.

(True copy.)

(signed) *J. J. Franklin*, Secretary Marine Board.

(No 1142.)

ORDERED, that the foregoing report be brought to the notice of the Honourable the Court of Directors.

2. Ordered also, that the Military Board be requested to cause a particular account of the expense incurred in the repair of the saw-gins to be kept, and when the repairs are completed, to submit a statement of the entire cost for transmission to the Honourable Court.

Fort St. George, (signed) *W. H. Bayley*,
30 November 1849. Acting Secretary to Government.

(No. 1414.)

From *J. J. Franklin*, Esq., Secretary Marine Board, to *J. F. Thomas*, Esq., Chief Secretary to Government, Fort St. George.

Sir,

THE Marine Board, in their letter of the 15th September last, No. 1152, stated that one of the cottage saw-gins which had been received from "La Belle," had been examined by the Chamber of Commerce, and that they would at an early period report on its working. I have now the honour, by their desire, to transmit the copy of a communication* received from that body, from which will be learned that their opinion is unfavourable to the use of the machine for cleaning New Orleans, Bourbon, or Tinnevely cotton.

*9 November 1849.

2. Copy of their report will also be forwarded to Dr. Wight, at Coimbatore.

Madras, Marine Board Office, (signed) *J. J. Franklin*, Secretary.
22 November 1849.

To the Secretary to the Marine Board.

Sir,

WITH reference to your letter of the 20th August, I have the honour to inform you that the cottage cotton-gin forwarded to the Chamber, has been tried twice in the presence of the members. I regret that I am not able to give a satisfactory report on the machine, but it was generally understood by the gentlemen present that the trials were very imperfect, for the following reasons:

II.
Madras.

In the first place, it is just possible that the machine is not in proper working order. It appears to have been subjected to hard usage on the passage out, and the adjustment of the saws may be so far deranged as to alter entirely their mode of operation. It may also be that a person thoroughly acquainted with it would put the gear of the machine in better working order than has been done in these trials.

The cotton used was New Orleans, Bourbon, and Tinnevely, all in the seed. With the first, the gin did not effectually separate the seed, its action became frequently choked, and the small quantity of clean cotton delivered was considerably injured in the staple. With the Bourbon seed cotton the effect was worse, the staple being very much cut up, and rendered unfit for spinning.

With the Tinnevely cotton the gin failed entirely to separate the staple from the seed; such portions as came through were entirely destroyed for spinning purposes.

I have therefore to report that from the trials made, imperfect as they have been, the Chamber has arrived at the conclusion that the cottage gin is not adapted for use by the ryots of this country. Independent of the defects above mentioned, the cost of the instrument would be a complete bar to its general use in the cotton districts, and, as far as an opinion on the subject may be entertained, it is doubtful if a native would voluntarily work an instrument of this description, even were its successful operation much more evident.

Chamber of Commerce, Madras, (signed) H. Nelson, Chairman.
9 November 1849.

P. S.—No member of the Chamber has expressed a wish to purchase any of the gins.

(True copy.)

(signed) J. J. Franklin,
Secretary Marine Board.

(No. 515.)

From J. J. Franklin, Esq., Secretary Marine Board, to Sir H. C. Montgomery, Bart.,
Chief Secretary to Government, Fort St. George.

Sir,

I HAVE the honour, by desire of the Marine Board, with reference to their letter of the 22d November last, No. 1414, transmitting a report from the Chamber of Commerce on the working of one of the cottage saw-gins sent to them for trial, to forward the copy of a letter from Surgeon Wight, Superintendent of the Coimbatore cotton farms, recording a much more favourable opinion of the capabilities of the machine.

2. The whole of the gins are about to be forwarded to Coimbatore, as requested by Surgeon Wight, (signed) J. J. Franklin, Secretary.

Madras, Marine Board Office,
27 March 1850.

From Surgeon R. Wight, Superintendent of Cotton Farms, Coimbatore, to J. J. Franklin, Esq., Secretary Marine Board, Madras.

Sir, WITH reference to the instructions contained in Minutes of Consultation, No. 431 (Revenue Department), under date 28th April 1849, I have the honour to request that all the cottage gins now in Madras may be forwarded to this establishment, with a view to their being cleaned, and fitted for work.

Those already received have been found to do their work exceedingly well, all except the bands, which I find are unequal to the strain they have to endure during the course of two or three days' steady working. In all other respects we have found them work well, and therefore feel rather surprised with the very unfavourable report recorded by the Chamber of Commerce, and communicated to me in your letter of the 22d November 1849.

(signed) Rob. Wight, Surgeon,
Coimbatore, 20 March 1850. Superintendent Cotton Farms.

(True copy.)

(signed) J. J. Franklin, Secretary Marine Board.

20 March 1850.

EXTRACT Revenue Letter from Fort St. George, dated 12 August (No. 43) 1850.

"The papers recorded in the Consultations noted in margin,* have reference to the disposal of the cottage saw-gins received by "La Belle," the "Ferris," and the "Llewellyn," and likewise to the purchase of certain others from Dharwar. Dr. Wight, having received application for the purchase of the cottage gins sent out by your Honourable Court, desired to be informed of the price to be put upon them, and, in reply, we intimated to him our opinion that 25 rupees for each was a price suited to the market, but that we had no objection to his selling them even at a lower rate, if necessary, to encourage purchasers. These orders, however, we observed, were not to apply to European applicants, to whom we desired the prime cost of 30 rupees each gin should be charged."

6. "Under date the 29th April last, the Board of Revenue submitted extracts of reports from the collectors of Bellary and Cuddapah, and solicited sanction for the purchase of 25 cotton gins from Dharwar for experimental use in those districts. The Dharwar gin, it was described, could be worked 'all day by two men alternately, cleaning about 1½ maunds 28 lbs.=1 maund of seed cotton the hour, and costing only 40 rupees.' At this rate the cost of 50 gins applied for would be 2,000 rupees."

7. "It did not appear to us that so many gins could be required merely for experimental purposes in the above districts, and as we were not prepared to incur so large an outlay as that proposed by the Board of Revenue, we desired that the collectors might be instructed to communicate with the Superintendent of cotton farms, and obtain from him such a number of the American cotton gins as were requisite, and could be conveniently spared, and further authorised each collector to purchase for trial in his district five of the Dharwar gins, the expense of the whole ten at 40 rupees apiece being 400 rupees. We have since ordered one of these to be sent to Dr. Wight at Cuddapah."

EXTRACT Fort St. George Revenue Diary to Consultation of 23 April 1850.

30 March.—Received the following Letter from Surgeon R. Wight, Superintendent of Cotton Farms, Coimbatore, to T. Pycroft, Esq., Secretary to Government, Fort St. George.

Sir,

HAVING received three applications for the purchase of cottage gins, I beg to be informed of the price I am to fix on each. The English price is 3*l*., but being uninformed of the expense incurred in bringing them, and whether I am to add it to the above charge, I have the honour to request the instructions of Government on these points.

No. 27.

Coimbatore,
25 March 1850.

(signed) R. Wight,
Superintendent of Cotton Farms.

THE Right Honourable the Governor in Council is of opinion that 25 rupees for each cottage gin is a price suitable to the market, but he has no objection to Dr. Wight selling them at a lower rate if he finds it necessary to encourage purchasers. These orders, however, are not to apply to European applicants, who should be charged prime cost, or 30 rupees each gin.

No. 28.

Fort St. George,
22 April 1850.

(signed) T. Pycroft,
Secretary to Government.

EXTRACT Fort St. George Revenue Consultation of 23 April 1850.

Read the following—

(No. 151.)

Extract from the Proceedings of the Board of Revenue, dated 8 April 1850.

READ letter from the collector of Tanjore, dated 26th ultimo, requesting to be informed whether he can be furnished with three or four more cotton gins, at a moderate price, for supply to the cotton growers of his district.

No. 45.

To

* 23 April 1850, No. 27, 28 and 45, 46. Diary, 11 June 1850, Nos. 1 to 3. Diary, 23 July 1850, Nos. 46, 47. Diary, 30 July 1850, Nos. 20, 21. Diary, 6 August 1850, Nos. 42, 43.

II.
Madras.To *W. H. Bayley, Esq.*, Secretary to the Board of Revenue, Fort St. George.

Sir,

THE two cotton gins supplied by Government are found to answer very well, the cotton passed through them being both well and expeditiously cleaned; I have, therefore, the honour to request you will be good enough to inform me if I can be furnished with three or four more, should I require them for sale in the district, if the cost be moderate, which I trust it may be, otherwise the cotton growers will not be tempted to purchase, and as the introduction of this improved machine will be of public benefit, the Government will, I hope, be prepared to let me have them at the lowest possible price.

(signed) *J. F. Bishop,*
Collector.Tanjore,
26 March 1850.

RESOLVED that the foregoing letter be submitted for the orders of the Right Honourable the Governor in Council, with reference to Minutes of Consultation, dated 6th and 13th November last.

(signed) *W. H. Bayley,*
Secretary.In Cons., 12 Nov.
1849.In Cons., 3 Dec.
1849.

No. 46.

RESOLVED, with reference to the orders of Government, dated 2d October and 6th November 1849 (Nos. 935 and 1057), that the Military Board be requested to report to Government the number of cotton gins received by the "La Belle" and "Ferris," and placed under their charge, that may remain in store, and in what manner the rest have been disposed of.

(signed) *T. Pycroft,*
Secretary to Government.Fort St. George,
23 April 1850.

EXTRACT Fort St. George Revenue Consultation of 30 July 1850.

Read the following—

(No. 1294.)

No. 20.

Extract from the Proceedings of the Board of Revenue, dated 15 July 1850.

In Cons., 15 July
1850.
In Cons., 6 April
1850.

READ letter from the collector of Tanjore, dated 8th July 1850, stating that the cotton gins applied for in his letter of 26th March 1850, are not now required, as in their working they tear the cotton too much

To *W. H. Bayley, Esq.*, Secretary to the Board of Revenue, Fort St. George.

Sir,

WITH reference to my letter of the 26th March, regarding a supply of cotton gins (cottage) for the use of parties in this district, I have now the honour to state that they are not required, as in their working they tear the cotton too much.

Tanjore, Kodycurry,
8 July 1850.(signed) *J. F. Bishop,*
Collector.

EXTRACT Fort St. George Revenue Diary to Consultation of 11th June 1850.

(No. 193.)

From *W. H. Bayley, Esq.*, Secretary to the Board of Revenue, to *Sir H. C. Montgomery, Bart.*, Chief Secretary to Government.

Sir,

No. 1.

IN anticipation of their Report on the Cultivation of Cotton in the Provinces during Fusly 1258, the Board of Revenue direct me to request you will submit to the Right Honourable the Governor in Council the accompanying extract from the reports received from the collectors of Bellary and Cuddapah; and, with reference to the observations of Mr. Pelly, to solicit sanction for the purchase of 25 cotton gins from Dharwar, for experimental use in Bellary, and a like number for Cuddapah. The cost of each gin will be 40 rupees, and the total amount, for which sanction is now solicited, is 2,000 rupees.

Revenue Board Office, Fort St George,
29 April 1850.(signed) *W. H. Bayley,*
Secretary.

From Bellary, 6 in Cons., 29 April 1850, paras. 4 to 6. From Cuddapah, 13 in Cons., 18 April 1850, para. 21.

EXTRACT from a Letter of the Collector of Bellary to the Secretary to the Board of Revenue, dated 6 April 1850.

II.
Madras.

* Dated 31 May 1849.

3. In a letter* to Dr. Wight (copy of which I have the honour to enclose) I made a full report of some experiments made with the Mexican seed in Fusly 1258. These experiments I thought very unsatisfactory; but Dr. Wight attributed the failure to the blight, and gave me much encouragement to prosecute them again. I have done this, and the result will be detailed in my next report for Fusly 1259. Dr. Wight forwarded a handy load of seed from Coimbatore, which has been distributed over the district, and the produce of which is now gathering in.

4. Dr. Wight also promised to send me two saw-gins for cleaning the country cotton; but these I have never received. It is very desirable that these machines should be introduced into Bellary with as little delay as possible, and I find I can procure them at Dharwar at a cost of 40 rupees each; and if the Board will allow me to order a few, I shall exert myself to give them a full trial.

5. The manner in which I became aware that such gins were procurable was as follows: In the printed book of cotton experiments in the Southern Marhatta Country, lately sent to me from the Board of Revenue, I observed that the New Orleans crop of 1848, in the Dharwar district, was almost an entire failure, and there the report ended. Desirous to know the result of the following year, and the prospects of the present season, I wrote a note to Mr. Bell, the Collector, inquiring about the crops. In a private communication with which I have been very kindly favoured by that gentleman, he informed me that the New Orleans plant had met with a very great check in the year 1848-49; but in the present year 1849-50, it was again recovering; and at the same time he informed me respecting the saw-gin, and though only a private communication, that gentleman will not, I am sure, object to my quoting his own words: "We are making up in the factory a very excellent description of saw gin, which can be worked all day by two men alternately, and cleans about 1½ maunds (28 lbs. 1 maund) of seed cotton the hour, and costs only 40 rupees. If you have nothing of the kind to clean cotton in Bellary, you should introduce it. The department here will supply any number you require before the next season. This instrument does nearly three times the work which the Manchester cottage gin, of which you have read, is capable of performing."

6. I am not at all sanguine of general success in the Mexican plant (the result of the present year will determine my measures for the future); but I entertain great hopes that the introduction of the saw-gin will be attended with as good results as at Dharwar or elsewhere; and I cannot do better, in concluding this report, than to request that the sanction of Government may be obtained for procuring, as soon as they can be got ready, 25 gins from Dharwar.

EXTRACT of a Letter from the Collector of Cuddapah to the Secretary to the Board of Revenue, dated 13 April 1850.

21. In respect to the improvement of the quality, so much needed, of the indigenous cotton, I fear the deficiencies in cleaning and gathering will not be remedied unless the agents of capitalists place themselves also in direct communication with the cultivators of the soil, make advances, and exercise the necessary supervision. The introduction of the saw-gin suitable for this variety will do much towards transmitting the article in a cleaner state to the port of shipment; as also towards cheapening the production of cleaned cotton, by superseding the tedious method now in use.

EXTRACT from the Military Board to Major-General the Right Honourable Sir Henry

Pottinger, Bart., G.C.B., Governor in Council, &c. &c. &c.

Right Honourable Sir,

AGREEABLY to the requisition contained in Resolution of Government, No. 349, dated the 23d instant, passed on a letter from the collector of Tanjore to the address of the Secretary Revenue Board, on the subject of a further supply of cotton saw-gins, we have the honour to report, for the information of your Excellency in Council, that, of the 42 saw-gins (18 per "La Belle," and 24 per "Ferris") transferred to the Military Board, in Extracts from Minutes of Consultation, dated 2d and 6th November, Nos. 935 and 1057 respectively, there are 20 now remaining in store; the others have been distributed as follows:

No. 2.

4 To the Collector of Coimbatore.

2 " " of Tinnevely,

2 " " of Tanjore.

12 To Dr. Wight.

II.
Madras.

2. The 12 saw-gins sent to Dr. Wight were not repaired in the arsenal, as that officer preferred having the requisite repairs to them executed under his own supervision; the cost of repairing the others has amounted in the aggregate, rupees (82. 12. 5.) eighty-two, annas twelve, and pice five, viz.: rupees (70. 11. 9.) seventy, annas eleven, and pice nine, for those brought out by the *La Belle*, and rupees (12. 0. 8.) twelve, and pice eight, for those received per "*Ferris*," as per detailed statements submitted to us by the principal Commissary of Ordnance.

3. In addition to the 20 saw-gins above adverted to, as remaining in store, duly repaired, there are 24 now received in January last, per "*Llewellyn*," but these we believe have not as yet been repaired, no report to that effect having been made to our Board.

(signed) P. Montgomerie, Brigadier,
Commandant of Artillery.

Robt. Pears, Major.

G. Balfour, Major.

Military Board Office, Fort St. George,

30 April 1850.

Para. 1. In their despatches of the dates noted in the margin,* the Honourable Court of Directors advised this Government of the shipment for the use of this Presidency, of 12 cases, each containing two cottage saw-gins, in each of the vessels "*La Belle*," the "*Ferris*," and "*Llewellyn*," being in all 72 gins. Of the number received by the "*La Belle*," four were sent to Tinnevely and two to the Chamber of Commerce; the remaining 18 gins of this consignment, as well as those received by the "*Ferris*" and "*Llewellyn*," in all 66, were transferred by the Marine to the Military Board.

2. From the report above furnished by the Military Board, it appears that 22 gins have been distributed,† and that 44 remain in store, of which 24, or those brought out by the "*Llewellyn*," have not yet been repaired.

Diary, 16 April
1850, Nos. 24, 25.

3. Dr. Wight, in his letter to the Marine Board, dated 20 March 1850, wrote favourably of the working of these gins, and requested that all those remaining in Madras should be sent up to Coimbatore; a requisition which does not appear to have been complied with.

† 25 March 1850,
in Diary, 23 April,
Nos. 27, 28.

4. At a subsequent date Dr. Wight,‡ having received applications for the purchase of these machines, desired to be informed of the price to be put upon them, and in Extract Minutes of Consultation, 22d April 1850, it was intimated to him that 25 rupees for each cotton gin was a price suited to the market; that there would be no objection to his selling even at a lower rate, if necessary, to encourage purchasers, but that to European applicants 30 rupees should be charged.

5. In their letter, now before Government, the Board of Revenue solicit sanction for the purchase of 50 cotton gins from Darwar, for experimental use in the Ceded Districts. The collector of Bellary, introducing the subject, states that Dr. Wight promised him two saw-gins for cleaning the country cotton, which he has not received, observing that it is desirable these machines should be introduced into Bellary with as little delay as possible, and that he can procure them from Darwar. The description given of the Darwar gin states that it "can be worked all day by two men alternately, and cleans about one and a half maunds (28 lbs. 1 maund) of seed cotton the hour, and costs only 40 rupees." The total cost of the 50 gins indented for by the Board, will, at this rate, be 2,000 rupees.

6. It does not appear to the Right Honourable the Governor in Council that so many as 25 gins can be required merely for experimental purposes, in each of the districts of Bellary and Cuddapah, and he is not prepared to sanction so large an outlay as that proposed by the Board of Revenue. He directs that the collectors be desired to communicate with the Superintendent of cotton farms, who will furnish them with as many of the saw-gins now under charge of the Military Board as may seem to him to be requisite and can conveniently be spared, and he authorises each collector to purchase for trial in his district five of the Dharwar gins, the expense of the whole ten at 40 rupees apiece, being 400 rupees.

7. The Military Board will at once communicate with Dr. Wight, and obtain his instructions in respect to those saw-gins which have not yet been repaired.

Fort St. George,

5 June 1850.

(signed) T. Pycroft,
Secretary.

* 7 March 1849, No. 2; 14 March 1849, No. 3; 30 May 1849, No. 5; 21 November 1849, No. 15.

† Four to the Collector of Coimbatore, four to the Collector of Tinnevely, two to the Collector of Tanjore, 12 to Dr. Wight.

EXTRACT Fort St. George Revenue Diary to Consultation of 23d July 1850.

8th, Received the following letter:

(No. 46.)

From Surgeon *R. Wight*, Superintendent Cotton Farms, Coimbatore, to *T. Pycroft*, Esq.,
Secretary to Government, Fort St. George.

Sir,

ADVERTING to Minutes of Consultation in the Revenue Department, No. 554, under date 5th June 1850, I have the honour to state that I have delayed my acknowledgment in the expectation of hearing from the Military Board and collector of Bellary; from neither of these parties has any communication been received.

During our trial of the cottage saw-gins, which was prolonged several weeks, that was until we had not, in consequence of the great accumulation of purchased native cotton, an unoccupied corner in which to work even one, we found that, worked by women, they cleaned from 50 to 60 lbs. of kuppas or seed cotton per diem, and by men from 70 to 75 lbs. At first, owing to an imperfection of the bands, the quantity was somewhat less, but latterly, when that was to some extent remedied, they could exceed it. It is now my impression that if the coolies had been paid at a lower rate than we found it necessary, at first starting, to give (one anna per maund), that there would have been greater assiduity and a larger outturn. A woman working the churka earns on an average from six to nine pie per diem. With our gins they earned with ease two annas, and they could earn two and a half, which, however, they did not seem to care about doing. As cleaned by the larger gins, kuppas costs eight pie per maund; were the small gins worked at the same rate of charge, I should not be surprised to find from two and a half to three maunds the current outturn; with the larger hand gins, worked by eight men, we find from six to seven hours required to clean 500 lbs. of seed cotton, and that is considered by the coolies so hard a day's work that they will not, though paid piecework, commence a second quantity of half the amount.

Such being the result of our experience, continued through several years, with gins varying in power from 18 to 60 saws, I cannot help expressing a doubt of the correctness of the statement regarding the efficiency of the Dharwar gins, which, worked by only two men, are said to clean 42 lbs. per hour for a whole day. At that rate, two men would clean 220 lbs. in six hours; while ours worked by eight, four and four alternately relieving each other, can only in the same time clean about 500 lbs., equal to 83 lbs. per hour, and the work, moreover, so fatiguing that they cannot continue it longer than for about six hours. Our gins are all built after American models, and work faster than an American-built 18 saw-gin which we have. It, indeed, cleans so slow, that the coolies at length refused to work it by contract labour.

The reported results obtained from the Darwar gins being so much more favourable than ours, I think it in every way desirable that further inquiry should be made on the subject; for, if such be indeed the case, it would be a great saving even to remake our hand-gins according to that model, which might easily be done, and at no great expense, now that we have all the materials at hand, and workmen accustomed to the work.

Without, however, venturing to recommend such a proceeding, which I could only do on the clearest and most undeniable evidence, I think I may be permitted to suggest the propriety of one of them being obtained as a model for this establishment, as it seems impossible to imagine that so great an error, as this comparison with our experience leads me to infer, could have been made in so simple and obvious a matter as the working of a cotton gin, and the difference in construction may, after all, be so slight as to admit of very easy adaptation to our gins. I have seen an almost inappreciable difference in the curve of the grates make the difference of an hour in the time required for cleaning 500 lbs. by the same gin.

(signed) *R. Wight*, Surgeon,
Coimbatore, 4 July 1850. Superintendent Cotton Farms.

(No. 47.)

Resolved, in reference to the concluding para. of the above letter, that the collector of Cuddapah be requested to forward to Dr. Wight, as early as practicable, one of the five Dharwar gins which he was authorised to purchase by the order of Government, under date the 5th ultimo.

Fort St. George, 20 July 1850.

(signed) *T. Pycroft*,
Secretary to Government.

II.
Madras.

(No. 1230.)
From *G. A. Bushby, Esq., Secretary to the Government of India, to Sir H. C. Montgomery, Bart., Secretary to Government, Fort St. George.*

Sir,
I AM directed to transmit, for the information of the Honourable the Governor in Council, the accompanying copies of papers respecting a new cotton-cleaning machine, or "Improved Indian Churka," invented by Mr. J. H. Mather,* Civil Engineer for the experimental cotton works in the North Western Provinces.

(signed) *G. A. Bushby,*
Fort William, 4 March 1848. Secretary to the Government of India.

From *T. J. Finnie, Esq., Cotton Planter, Tinnevely, to J. D. Bourdillon, Esq., Officiating Secretary to Government, Fort St. George.*

Sir,
I HAVE the honour to acknowledge the receipt of certain papers in reference to a new cotton-cleaning machine, on which my opinion is requested:

2. I am called upon to give an opinion on an abstract idea, created in the mind by Mr. Simms' description of a machine that is intended to supplant the saw-gin, the sooner the better I say, and supersede the old churka, which has gone on for ages with profit to the ryot, and has supplied cotton for the finest manufactures in the world.

3. Mr. Simms' account of the new machine is clear, and presents a perfect picture to the mind, of certain "rollers" and "spur wheels" and "pinions," and "fans with brushes," &c., all of which I perfectly understand, but not a word is said in regard to the manner in which the machine is set in motion, or what power it requires to move it, nor the quantity of work it is capable of doing in a given time, all of which data are absolutely essential to the formation of an opinion on the subject.

4. Having seen a description of the machine in the newspapers, I have given the subject careful and anxious consideration, and the result is unfavourable. I do not think that a machine on the principles mentioned can supersede the common churka, I think the advantages promised doubtful. However, I shall be glad if I am mistaken, and the machine proves capable of doing all that seems to be expected of it.

5. In reference to this subject I have no confidence in my own opinion, though I know something of machinery; of cotton I dare not express a positive opinion; I place no confidence in the opinion of any European, or body of Europeans, on this much misunderstood subject; no man or body of men dare say confidently that any machine will succeed in taking the place of the churka as a permanent, economical, and effectual means of separating the seed from the cotton in this country but the ryots; place it in their hands, and if they say it will do, and adopt it, the great desideratum is supplied. But unless the machine finds favour with the ryot and cotton brokers, all the mechanical ingenuity of the world cannot supersede the churka, for reasons mentioned in my reports and letters in reference to the gins. Establish a sure market for the well cleaned indigenous cotton, and the people, with a little extraneous aid, will give it to us at a cheaper rate, from their own churka, than they can by the use of any machine we can give them.

6. If Government will send one of the machines, I will give it my best attention, and ascertain its capabilities, by the test which I have applied to the gins.

(signed) *T. J. Finnie,*
Campy Arcoopocotta, Cotton Planter.
30 March 1848.

From Surgeon *R. Wight, Superintendent Cotton Farms, Coimbatore, to the Secretary to Government, Revenue Department, Fort St. George.*

Sir,
I HAVE the honour to acknowledge the receipt of Minutes of Consultation, No. 300, under date 24th March 1848, calling for my opinion regarding Mr. Mather's improved churka for cleaning Indian cotton.

Judging simply from Mr. Sinam's description of its principles, I am disposed to form a very favourable opinion of its properties as a cotton-cleaning machine; but as I have not seen it at work, and as the speed at which it works, or, in other words, the cost of cleaning cotton by it, is not adverted to in any of the reports, I am unable to offer any opinion on that important branch of the inquiry. An old woman here can with the hand-churka clean about 20 lbs. of seed cotton per day, at a cost of about 10 pice, or one anna the maund of 25 lbs., being a little over five rupees per candy (500 lbs.) of clean cotton. The

* The correspondence regarding Mr. Mather's churka will be found at page 367, Bengal and North Western Provinces section of this return.

saw-gin works much quicker, and perhaps a little cheaper, but not much; it, however, unless the cotton is really very fresh and good, is apt to injure the staple. But for the present, leaving that division of the subject out of consideration, as being one on which our information is yet imperfect, I think I am justified in stating that I look upon the new churka as promising to become a very useful and efficient machine, and therefore beg leave to suggest the propriety of one, at least, being obtained for the use of this establishment.

Two circumstances render the addition of such a machine desirable; 1st, we have this season succeeded in raising a variety of long stapled cotton, apparently a cross between the Pernambuco and Mexican; should this prove a permanent variety, the staple is much too long for cleaning by the saw-gin, and must, therefore, be unseeded by the churka, or some modification of that machine. 2d. A mercantile firm at Cochín has undertaken to obtain for me from the island, a supply of fresh Bourbon cotton seed, which I expect will arrive in time for sowing this season. The staple of that variety is, also, too long and delicate for the saw-gin, which would completely destroy it. The seed of the Bourbon cotton we have in cultivation was purchased from the natives, and has become so much deteriorated by their neglect and bad culture, that it is now scarcely distinguishable from the native cotton, and can like it be separated from the seed by the gin, but good Bourbon cotton could not, and such I expect to obtain from the newly imported seed.

Having thus the prospect of soon becoming possessed of two such valuable descriptions of cotton, it seems in every way desirable that we should have a suitable machine for cleaning it, and as Mr. Mather's is so favourably reported on by practical men, I would respectfully suggest that one be now ordered for this establishment, and in the event of its coming up to our expectations, more can be subsequently obtained, or probably constructed here.

(signed) *Robt. Wight*, Surgeon,
Superintendent Cotton Farms.

Coimbatore,
4th April 1848.

Revenue Department.—(No. 393.)

EXTRACT from the Minutes of Consultation, under date 17 April 1848.

Read the following letter:

From the Collector of Tinnevely.

[Here enter 21st March 1848, No. 67.]

From Mr. *T. J. Finnie*, Cotton Planter in Tinnevely.

[Here enter 30th March 1848, No. 67.]

From Surgeon *R. Wight*, Superintendent of Cotton Farms, Coimbatore.

[Here enter 4th April 1848, No. 67.]

THE Government resolve with reference to the correspondence recorded above to apply to the Government of India for two cotton-cleaning machines of the new pattern, invented by Mr. Mather, to enable the officers engaged in the experimental cotton farms at this Presidency to form a practical opinion of its merits, and with the view of procuring others, if that opinion should be favourable.

(signed) *H. C. Montgomery*,
Secretary to Government.

Revenue Department.—(No. 394.)

To *G. A. Bushby*, Esq., Secretary to the Government of India.

Sir,

I AM directed to acknowledge the receipt of your letter, dated 4th March 1848, No. 230, and in conveying the thanks of the Right Honourable the Governor in Council for the papers therewith received, respecting the new cotton-cleaning machine or "Improved Churka," invented by Mr. Mather, to communicate at the same time the request of this Government to be supplied with two of the machines, to enable the officers engaged in the experimental cotton farms at this Presidency to form a practical opinion as to its merits, and with the view of procuring others hereafter, should that opinion warrant such a proceeding.

(Fort St. George, 17 April 1848.) (signed) *H. C. Montgomery*,
Secretary to Government.

PROFIT and LOSS ACCOUNT of 6 Bales of 300 lbs. each, East India New Orleans Cotton, being the first batch purchased by Dr. Wight, at Coimbatore, from Natives, and cleaned by the saw-gin for consignment to England, as per Court of Directors' Despatch, communicated in the Extract Minutes of Consultation No. 136, under date 2 February 1846. Per "Elizabeth Jane."

Dr.

		Rs. a. p.	£. s. d.
1846: Cost and CHARGES in India as given by Dr. Wight:			
To cost of 6 bales of cotton, including the cost of ginning, ropes, and half screwing the bales		189 11 6	
- cost of 2 bandies to convey 6 bales of cotton to Carry-Patanum		14 - -	
- expense incurred in finishing and shipping 6 half-screwed bales, as per Sappoorjee Hergee's account, dated Cochin, 13 January 1847		14 2 7	
	Rs.	217 14 1	
Rs. 217. 14 a. 1 p. in sterling, at 2s. per rupee, is			£. 21 15 9
1847: CHARGES in ENGLAND:			
11 May - To dock rates at 5d. per bale		2 6	
- town dues at 2d. per bale		1 -	
11 July - freight, as per bill lading		4 16	
4 Sept. - cartage and portorage		5 3	
- canvas, twine, and mending		1 11	
- warehouse rent		1 5	
- fire insurance		1 -	
- interest on freight, 77 days		1 -	
- bank commission		3 -	
- brokerage		4 8	
- commission and del credere		8 2	
			7 3 4
Total Cost of, and Charges on, 6 Bales			£. 28 19 1
To Balance—Profit			18 - 11
			£. 47 - -

Cr.

		£. s. d.	£. s. d.
By Amount realised in England by the sales of the 6 Bales East India New Orleans Cotton, cleaned by saw-gin:			
1847:			
4 June - By Robert McKie, No. 2d. 1 bale, 288 lbs. at 5d. per lb.		6 - -	
4 Sept. - By John Mayal, 1st. 5 bales, 1,458 lbs. at 6d. per lb.		41 - -	
TOTAL Amount received for 6 Bales			£. 47 - -



Birkenhead,
31 December 1847.

(signed) Wm. Laird.

ACCOUNT SALES of 60 Bales of Cotton, per "Olinda," at Cochin, Account of the Honourable East India Company, per J. R. Tetley & Son.

1847: 25 Nov.	E I C O O 21 bales	Cwt: qrs. lbs. - 59 - 13 3 - 21 tr 16/1	£. s. d.	£. s. d.
		55 3 20 6,264 lbs. at 4½d.	117 9 -	
	F - - - 6 - - - - -	- 16 3 25 - 3 18		
		16 - 7 1,799 lbs. at 4½d.	35 12 1	
	N O - 33 - - - - -	- 93 - 16 5 - 1		
		88 - 15 9,871 lbs. at 3½d.	154 4 8	
		Pickings 66 at 1d.	- 5 6	
	Customary allowance on 25 bales, sea damaged and made merchantable	- 7,466 lbs. at -½d.	- - -	307 11 3
				3 17 9
	Freight as per account on above 60 bales and 45 bales sent to Manchester		136 10 -	303 13 6
	London dock charges as per account		11 19 1	
	Public sale charges—13 lots at 2s. 6d.		1 12 6	
	Brokerage, 1 per cent.		3 15 -	
				153 3 -
	Prompt, 26 February 1848		£.	150 10 6

ACCOUNT SALES of (O. T.) 45 Bales ex "Olinda," Sold for Account of the Honourable East India Company, per Hugh Fleming.

1847: 14 December	By E. and W. Bolling:	£. s. d.	£. s. d.
	2 bales - 5 2 14 - 0 1 4 - 5 1 10 - 598 at 5d.	12 9 2	
	By J. Hill:		
,, 16	30 bales - 85 0 7 - 4 1 4 - 80 3 3 - 9,047 at 4⅞d.	183 15 -	
	By Gladstone Brother & Co.:		
	8 bales - 22 2 2 - 1 0 16 - 21 1 4 - 2,394 ,, ,,	48 12 6	
	By Geo. Cheetham & Sons:		
	5 bales - 14 1 2 - 0 2 24 - 13 2 6 - 1,518 ,, ,,	30 16 8	
			275 13 4
	Charges:		
	To petty expenses, sampling, &c.	- 15 -	
	,, Carriage from London	£. 9 10 -	
	,, Deduct Liverpool rate	2 17 6	
		6 12 6	
	,, Fire insurance	- 7 6	
	,, Del credere commission and brokerage at 3½ on 275 l. 13s. 4d.	9 13 -	
			17 8 -
		£.	258 5 4

ACCOUNT SALES of 191 Bales Madras Cotton, ex "Lady Flora," on Account of the Honourable East India Company, per *J. R. Tetley & Son*.

1844:	Lot	Bales	lbs.							£. s. d.	£. s. d.
25 July	1	- 10	-	2,508	at $4\frac{5}{8}$ d.	per lb.	-	-	-	48 6 7	
	2	- 10	-	2,526	" "	"	-	-	-	48 13 7	
	3	- 10	-	2,522	" "	"	-	-	-	48 12 -	
	4	- 10	-	2,529	" $4\frac{1}{2}$	"	-	-	-	47 8 4	
	5	- 10	-	2,525	" "	"	-	-	-	47 6 11	
	6	- 10	-	2,526	" "	"	-	-	-	47 7 3	
	7	- 10	-	2,515	" "	"	-	-	-	47 3 2	
	8	- 10	-	2,414	" $4\frac{3}{8}$	"	-	-	-	44 - 1	
	9	- 10	-	2,504	" 4	"	-	-	-	41 14 8	
	10	- 10	-	2,518	" "	"	-	-	-	41 19 4	
	11	- 9	-	2,264	" $3\frac{3}{8}$	"	-	-	-	31 16 9	
	12	- 10	-	2,500	" $4\frac{3}{4}$	"	-	-	-	49 9 7	
	13	- 10	-	2,525	" $4\frac{5}{8}$	"	-	-	-	48 13 2	
	14	- 10	-	2,520	" "	"	-	-	-	48 11 3	
	15	- 10	-	2,501	" "	"	-	-	-	48 3 11	
	16	- 10	-	2,505	" "	"	-	-	-	48 5 5	
	17	- 10	-	2,494	" "	"	-	-	-	48 1 3	
	18	- 11	-	2,767	" "	"	-	-	-	53 6 5	
	19	- 2	-	503	" $4\frac{1}{2}$	"	-	-	-	9 8 7	
	20	- 3	-	764	" $4\frac{5}{8}$	"	-	-	-	14 14 6	
	21	- 2	-	506	" $3\frac{3}{8}$	"	-	-	-	7 2 4	
	22	- 1	-	258	" $4\frac{1}{3}$	"	-	-	-	4 16 9	
	23	- 1	-	249	" $3\frac{3}{8}$	"	-	-	-	3 10 1	
	24	- 1	-	252	" $5\frac{1}{4}$	"	-	-	-	5 10 3	
	25	- 1	-	200	" $0\frac{1}{8}$	"	-	-	-	- 2 1	
										884 4 3	
				Allowance on two bales not equal to sample	-	-	-	-	-	- 13 9	
											883 10 6
				Freight, as per account	-	-	-	-	-	210 5 8	
				Dock charges, as per accounts	-	-	-	-	-	12 17 3	
				Rent	-	-	-	-	-	5 2 6	
				Public sale charges on 25 lots at 2 s. 6 d.	-	-	-	-	-	3 2 6	
				Brokerage, 1 per cent.	-	-	-	-	-	8 16 10	
											240 4 9
				Prompt, October 26, 1844.						£.	643 5 9

E. E., London, 31 October 1844.

(signed) *J. R. Tetley & Son.*

Memorandum.—continued. By Jos. Clarke & Co. for 371 bales:

ACCOUNT SALES of 483 BALES of COTTON, per "Argyra,"** sold for Account the Honourable East India Company, per *Hugh Fleming* of Manchester.

Payment, 10 Days and 3 Months.

1848:												£.	s.	d.
8 August	-	By G. Cheetham and Sons, for 14 Bales:												
		NO, 1 bale, NOF, 13 bales	38	2	21	-	2	0	0	0	0	68	9	8
		36 2 21	-	-	-	-	-	-	-	-	-			
		Carriage										-	17	4
11 "		By Rob. Fetton, for 2 bales:												
		NOP, 2 B - 5 1 25	-	1	4	-	5	0	21	on 581 at 2 1/2 d.		6	13	-
		Carriage										-	2	4
16 August	-	By Jas. Kennedy and Co., for 14 bales:												
		N & OF, 14 B. - 38 0 0	-	2	0	0	-	36	0	0, or 4,032 at 3 d.		50	8	-
		Carriage										-	17	-
5 Sept.	-	By G. Cheetham and Sons, for 31 bales:												
		N + OF, 1 Bale - 2 2 26	-	16	-	2	2	10	or 290 at 4 1/2 d.		5	2	8	
		N + OFM, 4 B - 10 3 9	-	2	8	10	-	1	1, or 1,149 at 1 1/2 d.		16	15	-	
		COOT, 6 B - 24 3 15	-	1	1	4	-	23	2 11, or 2,643 at 4 1/2 d.		44	1	-	
		N + OF, 17 B - 1 2 46	-	2	20	44	0	9, or 4,437 at 4 1/2 d.		82	5	8		
		Carriage										1	18	3
8 "	-	By Jos. Chimes, for 1 bale:												
		NOF, 1 bale - 22 2 16	-	2	2	6, or 2682 at 4 1/2 d.								
		Carriage												

(continued)

MANCHESTER COMMERCE ASSOCIATION.

EXPLANATION OF THE MARKS FROM DR. WIGHT:

(E) 1. as a sample from seed sown the end of May.

NO - Farm grown New Orleans, 1846.

NOF - Ditto ditto 1846-47.

N + OF - Farm grown New Orleans, of the crop of 1847-48.

N + OF - Ditto ditto ditto marked.

1. as a sample from seed sown the end of May.

N + OF - Farm grown New Orleans, of the crop of 1847-48, marked 2, as a sample from seed sown 15th June.

N + OFM - Farm grown New Orleans, of the crop of 1847-48, middling quality.

NOP - New Orleans purchased native grown.

NOMP - Ditto ditto middling quality.

OO - Farm grown Oopum, 1846-47.

OO - Purchased Oopum cotton gin cleaned.

OOM - Ditto ditto middling quality.

COOT - Oopum, churka cleaned and thrashed.

ACCOUNT SALES of 483 Bales of Cotton, per "Argyra," sold for Account, &c.—*continued.*

		£.	s.	d.
1848 :				
26 Sept.	By Jos. Clarke & Br., for 371 bales :			
	OO 300 B 834 2 9			
	NOF 14 38 2 15			
	NOP 4 11 0 14			
	NOMP 1 2 2 26			
	OO F 3 8 1 7			
	OO M 49 136 2 9			
	1,031 3 24 53 0 0 978 3 2, or 109,641 at 1 1			
	Carriage			
26 "	By G. Clarke & Co., for 50 bales :			
	OO, 50 bales 139 1 23 7 0 16 132 1 7, or 14,819 at 1 1			
	Carriage			
	1,995 9 10			
	Charges :			
	To Carriage from Liverpool			
	„ Canvas, twine, &c., mending			
	„ Public Sale expenses			
	„ Bkge., del credere, and comm. at 3 1/2 d. per lb., at 1,995 l. 9 s. 10 d.			
	„ Fire Insurance			
	Nett proceeds, averaging cash, 4th January, 1849			
	Manchester,			
31 October 1848.	E. E. (signed) Hugh Fleming.			

Manchester Commercial Association,

1 November 1848.

Sir,

REFERRING to my letter of yesterday's date, I have now the honour to transmit "Account Sales," &c., of the shipment of cotton, ex "Argyra," amounting to 1,884 l. 19 s. 2 d. (eighteen hundred and eighty-four pounds, nineteen shillings and two pence) nett, which I hope will prove satisfactory to the Honourable Court. The purchasers of the several parcels have received printed circulars from me, requesting their report (in a tabular form) as to the working qualities of the cotton, which shall be forwarded to you for the information of the Court as soon as I obtain them. You will observe in the account sales one bale of cotton described in red* ink; I have so distinguished it, as it was considered the best ever imported from India, and was the produce of seed sown 29th May 1847; I forwarded a statement of the prices obtained for this cotton to Dr. Wight, per last mail.

* Printed in italics, p. 396.

I have, &c.

(signed) Hugh Fleming,

Secretary.

James C. Melvill, Esq.,
&c. &c. &c.
India House, London.

II.
Madras.

Manchester Commercial Association,
29 November 1848.

Sir,

HEREWITH I have the honour to transmit for the information of the Court of Directors of the Honourable East India Company, reports on the working qualities of the cotton per "Argyra" recently sold by me for their account. There are several circulars still outstanding, which shall be forwarded to you as I receive them.

James C. Melvill, Esq.,
&c. &c. &c.
East India House, London.

I have, &c.
(signed) *Hugh Fleming*,
Secretary.

Manchester Commercial Association,
26 September 1848.

Sir,

OBSERVING that you have purchased one bale of the experimental cotton, imported by the Honourable the East India Company, per "Argyra," consigned to me, I beg to annex a list of queries as to its working qualities, to which I request the favour of your reply, for the information of the Honourable Company, who are most desirous, as far as in them lies, to extend and improve the cultivation of the cotton plant in India. A separate report upon each parcel will be esteemed a favour.

Messrs. Geo. Cheetham & Sons,
Staley Bridge.

I am, &c.
(signed) *Hugh Fleming*,
Secretary.

Particulars as to the Working Qualities of East India Cotton.

Per "Argyra."—N. and O. F.

Questions. 2. Answers.

General character of the cotton as to staple, &c.? Clean and bright colour. Fair staple.

Nos. of yarn spun? 20 s.

What does it lose as compared with common Surat? No means of ascertaining.

What does it lose as compared with Orleans, or of nearly the same character? The quantity being so small, we have used it with Orleans, and should think the loss would be about the same, but have not tried it separately.

Further observations:

The above remarks apply to the whole of the cottons purchased.

Pro Geo. Cheetham & Sons.

(signed) *J. Smith*.

PARTICULARS as to the Working Qualities of East India Cotton, per "Argyra."

General character of the cotton as to staple, &c.? Very short in staple and neppy.

Nos. of yarn spun? 12 s.

What does it lose as compared with common Surat, on a bale weighing 414 lbs.?	Before carding, 57 lbs.	Surat. 18 lbs. } on one bale weighing
	After carding, 34 lbs.	21 lbs. } 2. 2. 17.

What does it lose as compared with Orleans, of, or nearly of, the same character, on one bale weighing 4. 0. 20?	Orleans. 28 lbs.	Experimental Cotton. 39 lbs. } on one bale weighing
	28 lbs.	2. 2. 17.

Further observations:

The cotton of this cargo is not as good as the last by fully a farthing per lb., being of a very short staple.

(signed) *Joseph Clarke and Brother*.

ACCOUNT SALES of 871 bales East India Cotton ex "Ganges," from Cochin, sold at Manchester, for account the Honourable East India Company, by *Hugh Fleming*.

		Payment, ten days and three months.	£.	s.	d.	£.	s.	d.
1849:		By George Cheetham & Sons, for 371 bales:						
24 July	-	C O O T 326 B. wg. 897. 0. 25 - 46. 2. 8. } or 95,273 lbs. at 4½d.	1,786	7	4			
		850. 2. 17. - - - - -						
		" 45 B. wg. 125. 2. 19 - 6. 120. 0. - } or 13,355 lbs. at 4½d.	230	9	11			
		119. 0. 27. - - - - -						
		Carriage - - - - -	17	18	-			
						2,040	15	3
		By Robinson & Brothers, for 25 bales:						
26 July	-	O O 20 B. wg. 55. 1. 17. - 2. 3. 12 - 52. 1. 23., or 5,875 lbs. at 5d.	122	7	11			
		" 5 B. wg. 14. 0. 13 - 2. 24. 0 - 18. 1. 7., or 1,491 lbs. at 4½d.	29	10	2			
		Carriage - - - - -	1	4	6			
						153	2	7
27 July	-	By Edward Sidebottom & Sons, for 2 bales:						
		O 2 B. wg. 5. 1. 2 - 1. 4. 0 - 4. 3. 26., or 558 lbs. at 4½d.	10	9	3			
		Carriage - - - - -	-	2	-			
						10	11	3
28 July	-	By J. P. & E. Westhead, for 10 bales:						
		O O 10 B. wg. 27. 3. 21 - 1. 1. 20 - 26. 2. 1., or 2,969 lbs. at 5d.	61	17	1			
		Carriage - - - - -	-	9	11			
						62	7	-
31 July	-	By G. Cheetham & Sons, for 31 bales:						
		N + O F. 31 B. wg. 86. 0. 0 - 4. 1. 20 - 81. 2. 8., or 9,136 lbs. at 5½d.	199	17	-			
		Carriage - - - - -	1	19	9			
						201	7	9
23 Aug.	-	By Chas. Haigh, for 10 bales:						
		O O 10 B. wg. 27. 2. 26 - 1. 1. 20 - 26. 1. 6., or 2,946 lbs. at 5d.	61	7	6			
		Carriage - - - - -	-	9	8			
						61	17	2
24 Sept.	-	By Simon & Co., for 25 bales:						
		O O 25 B. wg. 69. 2. 16 - 3. 3. 5 - 65. 3. 11., or 7,375 lbs. at 4½d.	149	16	-			
		Carriage - - - - -	-	8	9			
						150	4	9
24 Sept.	-	By S. & H. Samuelson, for 30 bales:						
		O O 30 B. wg. 83. 1. 7 - 4. 1. 4. - 79. 0. 3., or 8,851 lbs. at 4½d.				179	15	-
10 Oct.	-	By G. Cheetham & Sons, for 334 bales:						
		O O 332 B. wg. 918. 3. 2 - 47. 1. 20 - 871. 1. 10., or 97,590 lbs. at 5d.	2,033	2	6			
		O O 2 B. wg. 5. 1. 21 - 0. 1. 4 - 5. 0. 17., or 577 lbs. at 4½d.	11	8	4			
		2 Carriage - - - - -	5	15	6			
						2,050	5	6
10 Oct.	-	By Kelly & Gilmour, for 25 bales:						
		N + O F. 2d sort, 13 bales						
		N O P 2d " 3 "						
		N O F & B 2d " 1 " wg. 68. 1. 16.						
		N O & B F 1st " 1 " 3. 2. 8. T. & D. } 7,260 lbs. at 4½d.	132	6	10			
		N O & B F 2d " 1 " 64. 2. 5 Nett, or }						
		N O P 2d " 1 "						
		K & G., no mark - 5 "						
		Carriage - - - - -	-	8	6			
						132	15	4

II.
Madras.

5. Regarding the success of the American cotton in the plains, I can only say that its success depends on its adoption by the people. If the plant produces sufficient to satisfy the people in pecuniary results, they will soon extend its culture; but if it continues to fail, as it has hitherto done, to yield a profit, the ryots of course will not continue to cultivate it at a pecuniary sacrifice. It is very desirable that it should succeed, and I shall use every effort in my power to insure its success.

(signed) Thomas James Finnie,
Cotton Planter.

Sevacausey, 11 April 1849.

ACCOUNT of COSTS and CHARGES incurred on a quantity of COTTON Cleaned by the Native Churka, and the American Gin respectively.

Churkaed :	Rs.	a.	p.	Rs.	a.	p.
Cost of 76 candies, and 459½ lbs. of churka cleaned cotton, at 55 Company's rupees per candy ; when pressed, forming 116 bales of 337 lbs. each, making 39,092 lbs.	4,230	9	1			
Cart-hire for transit to Tutacurin - 00†	112	5	10			
				4,342	14	11
(From the weights of the bales, it appears that 632 lbs. was gained by difference of weight in the interior and at the port).						
Cost of 623 pothees and 159½ lbs., or 354 candies and 91½ lbs. of native seed cotton, averaging at Rs. 12. 14. 7. per candy; when the seeds were separated, making candies 74 and lbs. 197 of cleaned cotton, forming 111 bales, 110 of 337 lbs. each, and one half bale of 127 lbs., making 37,197 lbs.*	4,574	3	7			
Ginned :						
Cooly hire for ginning and packing cotton into bundles	772	5	11			
Cloth, twine, &c., for packing cotton	54	-	-			
Cart-hire for transit to Tutacurin	114	2	11			
	940	8	10			
Deduct cash realised for seed †	508	7	7			
				432	1	3
				5,006	4	10
American Ginned :						
Cost of 4 pothees and 180½ lbs., or 2 candies and 316½ lbs. of American seed cotton purchased from the ryots, at Rs. 15. 12. 10. per candy, making, after separating the seed, 342 lbs. of clean cotton	41	10	9			
Cooly-hire for ginning	1	1	-			
Cloth, twine, and packing	1	1	-			
Cart-hire	9	-	-			
	3	12	9			
				45	7	6

(There are 2 bales of American cotton at 337 lbs. each, and 1 of 300 lbs., making 974 lbs., 632 lbs. of which was produced at the Courtallum farm, but inadvertently mixed at Tutacurin).

Messrs. Arbuthnot and Co.'s bill for pressing charges, &c., a copy of which is enclosed	811	13	11
Messrs. Parry and Co.'s bill for freight, a copy of which is enclosed	3,141	13	1
TOTAL	Rs. 13,348	16	3

(signed) Thomas James Finnie,
Cotton Planter.

Sevacausey, 11 April 1849.

* The per-centage of clean cotton after separating the seed by the gin is 21. We had nothing to do with the seed of the cotton cleaned by the churka.

† 209 pothees of seed from the native seed cotton purchased remaining unsold.

Honourable Company [through *T. J. Finnie, Esq.,*] to Messrs. *Arbuthnot and Co.*

II.
Madras.

	Rs.	a.	p.
To press hire on 116 bales, each containing 337 lbs. of churka cotton, to candies 78, lbs. 92; at 5 rupees a candy - - - - -	390	14	8
To ditto, ditto, on 110 bales, each bale containing 337 lbs. of gin cotton, and 1 half bale, containing 127 lbs. of ditto, to candies 74, lbs. 197; at 5 rupees a candy - - - - -	371	15	6
To ditto, ditto, on 2 bales, each bale containing 337 lbs. of American gin cotton, and 1 bale, containing 300 lbs. of ditto, to candy 1, lbs. 474; at 5 rupees a candy - - - - -	9	11	10
To Cooly hire, conveying loose bundles from the godown into the press-house - - - - -	-	10	4
To ditto, ditto, wheeling bales from the press-house to godown - - - - -	1	1	8
To ditto, ditto, storing bales in godown - - - - -	1	11	11
To four Coolies, preparing gunny bags - - - - -	-	-	-
To four bottles cocoa-nut oil - - - - -	10	8	-
To Cooly hire, marking 229½ bales, at 8 annas per 100 - - - - -	14	10	-
To shipping charges on 229½ bales, at 3½ rupees per 100 - - - - -	8	-	6
To boat hire on 229½ bales taken to the ship "Aurora" - - - - -	22	15	4
To inspector's commission on 229½ bales - - - - -	28	4	8
TOTAL - - - Co.'s Rs.	811	13	11

Tutacorin, 20 February 1849.

(E. E.)
(signed) *Arbuthnot & Co.*

(True copy.)

(signed) *T. J. Finnie, Cotton Planter.*

N. B.—The Bill being made out in my name, I have added that part of the heading in brackets.

Honourable Company [through *T. J. Finnie, Esq.,*] Dr. to Messrs. *Parry and Co.*

To freight on 230 bales of cotton, per "Aurora," from Tutacorin to London, being seventy-two (72) tons, as per bill of lading, at 4*l*. per ton.

Exchange at 1*s.* 10*d.* per rupee - - - - - **Rs. 3,141 13 1**

(E. E.)
(signed) *A. Forrester Brown,*
Agent to Messrs. *Parry and Co.*

Tutacorin, 21 February 1849.

(True copy)

(signed) *T. J. Finnie, Cotton Planter.*

N. B.—The bill being made out in my name, I have added that part of the heading in brackets.

(True copies.)

(signed) *W. H. Bayley,*
Acting Deputy Secretary to Government.

Manchester Commercial Association,
28 August 1849.

Sir,

HEREWITH I have the honour to transmit report as to the qualities of the shipment of experimental cotton, ex "Ganges" and "Aurora;" large quantities of the approved marks would always meet with a ready sale, but spinners are unwilling to take a kind of cotton into use which they cannot follow up with a similar sort, the supply being deficient.

I have, &c.

(signed) *Hugh Fleming,*
Secretary.

James C. Melvill, Esq.,
&c. &c. &c.
India House, London.

II.
Madras.

5. Regarding the success of the American cotton in the plains, I can only say that its success depends on its adoption by the people. If the plant produces sufficient to satisfy the people in pecuniary results, they will soon extend its culture; but if it continues to fail, as it has hitherto done, to yield a profit, the ryots of course will not continue to cultivate it at a pecuniary sacrifice. It is very desirable that it should succeed, and I shall use every effort in my power to insure its success.

Sevacausey, 11 April 1849.

(signed) Thomas James Finnie,
Cotton Planter.

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Churkaed :	Rs.	a.	p.	Rs.	a.	p.
Cost of 76 candies, and 459½ lbs. of churka cleaned cotton, at 55 Company's rupees per candy ; when pressed, forming 116 bales of 337 lbs. each, making 39,092 lbs.	4,230	9	1			
Cart-hire for transit to Tutacurin - - - -	112	5	10			
				4,342	14	11
(From the weights of the bales, it appears that 632 lbs. was gained by difference of weight in the interior and at the port).						
Cost of 623 pothees and 159½ lbs., or 354 candies and 91½ lbs. of native seed cotton, averaging at Rs. 12. 14. 7. per candy ; when the seeds were separated, making candies 74 and lbs. 197 of cleaned cotton, forming 111 bales, 110 of 337 lbs. each, and one half bale of 127 lbs., making 37,197 lbs.* - - - -	4,574	3	7			
Ginned :						
Cooly hire for ginning and packing cotton into bundles - - - -	772	5	11			
Cloth, twine, &c., for packing cotton - - - -	54	-	-			
Cart-hire for transit to Tutacurin - - - -	114	2	11			
	940	8	10			
Deduct cash realised for seed † - - - -	508	7	7			
				432	1	3
				5,006	4	10
American Ginned :						
Cost of 4 pothees and 180½ lbs., or 2 candies and 316½ lbs. of American seed cotton purchased from the ryots, at Rs. 15. 12. 10. per candy, making, after separating the seed, 312 lbs. of clean cotton - - - -				41	10	9
Cooly-hire for ginning - - - -				1	11	-
Cloth, twine, and packing - - - -				1	1	-
Cart-hire - - - -				1	9	-
				3	12	9
				45	7	6
(There are 2 bales of American cotton at 337 lbs. each, and 1 of 300 lbs., making 974 lbs., 632 lbs. of which was produced at the Courtallum farm, but inadvertently mixed at Tutacurin).						
Messrs. Arbuthnot and Co.'s bill for pressing charges, &c., a copy of which is enclosed - - - -				811	13	11
Messrs. Parry and Co.'s bill for freight, a copy of which is enclosed - - - -				3,141	13	1
TOTAL - - - -				Rs. 13,348	16	3

Sevacausey, 11 April 1849.

(signed) Thomas James Finnie,
Cotton Planter.

* The per-centage of clean cotton after separating the seed by the gin is 21. We had nothing to do with the seed of the cotton cleaned by the churka.

† 209 pothees of seed from the native seed cotton purchased remaining unsold.

Honourable Company [through *T. J. Finnie, Esq.*] to Messrs. *Arbuthnot and Co.*II.
Madras.

	Rs.	a.	p.
To press hire on 116 bales, each containing 337 lbs. of churka cotton, to candies 78, lbs. 92; at 5 rupees a candy - - - - -	390	14	8
To ditto, ditto, on 110 bales, each bale containing 337 lbs. of gin cotton, and 1 half bale, containing 127 lbs. of ditto, to candies 74, lbs. 197; at 5 rupees a candy - - - - -	371	15	6
To ditto, ditto, on 2 bales, each bale containing 337 lbs. of American gin cotton, and 1 bale, containing 300 lbs. of ditto, to candy 1, lbs. 474; at 5 rupees a candy - - - - -	9	11	10
To Cooly hire, conveying loose bundles from the godown into the press-house - - - - -	-	10	4
To ditto, ditto, wheeling bales from the press-house to godown - - - - -	1	11	8
To ditto, ditto, storing bales in godown - - - - -	1	11	11
To four Coolies, preparing gunny bags - - - - -	-	-	-
To four bottles cocoa-nut oil - - - - -	10	8	-
To Cooly hire, marking 229½ bales, at 8 annas per 100 - - - - -	14	10	-
To shipping charges on 229½ bales, at 3½ rupees per 100 - - - - -	8	-	6
To boat hire on 229½ bales taken to the ship "Aurora" - - - - -	22	15	4
To inspector's commission on 229½ bales - - - - -	28	4	8
TOTAL - - - Co.'s Rs.	811	13	11

(E. E.)

Tutacoring, 20 February 1849. (signed) *Arbuthnot & Co.*

(True copy.)

(signed) *T. J. Finnie, Cotton Planter.**N. B.*—The Bill being made out in my name, I have added that part of the heading in brackets.Honourable Company [through *T. J. Finnie, Esq.*] Dr. to Messrs. *Parry and Co.*

To freight on 230 bales of cotton, per "Aurora," from Tutacoring to London, being seventy-two (72) tons, as per bill of lading, at 4 £ per ton.

Exchange at 1 s. 10 d. per rupee - - - - - **Rs. 3,141 13 1**

(E. E.)

(signed) *A. Forrester Brown,*Tutacoring, 21 February 1849. Agent to Messrs. *Parry and Co.*

(True copy)

(signed) *T. J. Finnie, Cotton Planter.**N. B.*—The bill being made out in my name, I have added that part of the heading in brackets.

(True copies.)

(signed) *W. H. Bayley,*
Acting Deputy Secretary to Government.

Manchester Commercial Association,

28 August 1849.

Sir, I have the honour to transmit report as to the qualities of the shipment of experimental cotton, ex "Ganges" and "Aurora;" large quantities of the approved marks would always meet with a ready sale, but spinners are unwilling to take a kind of cotton into use which they cannot follow up with a similar sort, the supply being deficient.

I have, &c.

(signed) *Hugh Fleming,*
Secretary.*James C. Melvill, Esq.,*

&c. &c. &c.

India House, London.

II.
Madras.

REPORT on the Quality of East India COTTON, ex "Ganges" and "Aurora," from Coimbatore and Tinnevely.

MARK.	NUMBER of BALES.	
COOT* No. 1.	298	Clean bright cotton, short in staple, adapted to the Nottingham market, for hosiery purposes. If a greater quantity of this cotton were coming forward it would be readily used.
COOT - No. 2.	45	Ditto, but not so good, being of a secondary quality.
COO* No. 3.	28	Ditto - ditto - ditto.
OO - No. 4.	427	Clean bright cotton, better than No. 1, though not so well cleaned, staple injured in ginning, but very well adapted for weft of all descriptions.
OO 2nd. No. 5.	7	Ditto ditto ditto.
N + OF - No. 6.	31	This is the most serviceable cotton in the present shipment, and suitable for any manufacturing purpose.
N + OF 2d No. 7.	13	Very poor.
SBM No. 8.	2	This is a very good cotton, valued at about 5½d. per lb.; in colour it is equal to fine bowed, but not quite so fine in the staple; the quantity being so very small, it is difficult to arrive at its true value. The same remarks apply to the following lots.
SNOB - No. 9.	2	As per No. 8.
NOP - No. 10.	2	- ditto.
NOP 2d - No. 11.	2	- ditto.
BF - No. 12.	1	- ditto.
NO & BF No. 13.	1	- ditto.
NO & BF 2nd - No. 14.	1	- ditto.
NOF & B - No. 15.	1	- ditto.
N + OP 2nd - No. 16.	1	- ditto.
NOP & B - No. 17.	1	As per No. 8.
O No. 18.	2	- ditto.
Tinnevely churka	30	This cotton is very much approved of, and purchasers would be found for almost any quantity.
Tinnevely gin	30	- ditto.

(signed) *Hugh Fleming,*
Secretary,
Manchester Commercial Association.

ACCOUNT SALES of 289 Bales of COTTON, ex "Morayshire," from Cochin, for account of the Honourable East India Company, per J. R. Tetley & Son.

1850: 1 August	Lot	Nos.	£. s. d.	£. s. d.
	1	30 bales sent to Manchester.		
	223 bales	- 3		
	4 - 31 to 40	- 10 - 3,071 at 7 $\frac{1}{2}$ d. per lb.	89 11 5	
	5 - 41 to 50	- 10 - 3,035	88 10 5	
	6 - 51 to 60	- 10 - 3,061	89 5 7	
	7 - 61 to 70	- 10 - 3,067	89 9 1	
	8 - 71 to 80	- 10 - 3,047	88 17 5	
	9 - 81 to 90	- 10 - 3,021	88 2 3	
	10 - 90 to 98	- 8 - 2,406	70 3 6	
	11 - 99 to 103	- 5 - 1,503	43 16 9	
	Country damaged	- 12 - 104 to 114 - 11 - 3,391 at 6 $\frac{1}{2}$ d. per lb.	97 2 8	
	"	- 13 - 115 to 125 - 11 - 3,399 at 6 $\frac{1}{2}$ d. "	95 11 11	
	"	- 14 - 126 to 136 - 11 - 3,390	95 6 10	
	Sea damaged C. 1	- 15 - 137 to 146 - 10 - 3,008 at 6 $\frac{1}{2}$ d. "	86 3 4	
	"	- 16 - 147 to 156 - 10 - 3,085 at 6 $\frac{1}{2}$ d. "	86 15 4	
	"	- 17 - 157 to 166 - 10 - 3,045 at 6 $\frac{1}{2}$ d. "	87 4 6	
	"	- 18 - 167 to 176 - 10 - 3,052	87 8 6	
	"	- 19 - 177 to 186 - 10 - 3,070	87 18 9	
	"	- 20 - 187 to 195 - 9 - 2,730	78 4 1	
	" C. 2	- 21 - 196 to 205 - 10 - 3,137 at 6 $\frac{1}{2}$ d. "	86 11 11	
	"	- 22 - 206 to 215 - 10 - 3,088 at 6 $\frac{1}{2}$ d. "	83 12 8	
	"	- 23 - 216 to 222 - 7 - 2,124	57 10 6	
	"	- 24 - 223 - 1 - 312 at 5 $\frac{1}{2}$ d. "	7 6 3	
	"	- 25 - 224 to 226 - 3 - 884 at 6 $\frac{1}{2}$ d. "	23 18 10	
	2d sort, 5 bales, sea damaged	- 26 - 227 - 1 - 299 at 6 $\frac{1}{2}$ d. "	7 18 9	
	"	- 26* - 228 - 1 - 286	7 11 11	
	N O F 35 bales	- 27 - 230 to 239 - 20 bales sent to Manchester.		
	"	- 28 - 240 to 249 - 2 - 631 at 8d. per lb.	21 - 8	
	Sea damaged C. 1	- 30 { 253/259, 261, } 10 - 3,025 at 7 $\frac{1}{2}$ d. "	94 10 7	
	" C. 2	- 31 { 262, 290 } 9 - 924 at 6 $\frac{1}{2}$ d. "	25 15 8	
	2d sort, 24 bales	- 32 - 263/268, 260 - 7 - 2,093 at 5 $\frac{1}{2}$ d. "	51 4 8	
	Sea damaged, C. 1	- 33 - 269, 269 to 280 - 13 - 3,950	96 13 10	
	" C. 2	- 34 - 282, 283 - 2 - 617 at 5 $\frac{1}{2}$ d. "	14 9 3	
	" C. 3	- 35 - 284 - 1 - 318 at 5 $\frac{1}{2}$ d. "	6 15 10	
	" C. 4	- 36 - 285 - 1 - 303 at 3 $\frac{1}{2}$ d. "	4 5 3	
	N O F	- 37 - 287 - 1 - 304 at 6 $\frac{1}{2}$ d. "	8 14 2	
	2 bales, sea damaged, C. 1	- 38 - 288 - 1 - 310 at 6 $\frac{1}{2}$ d. "	8 11 2	
	Freight, as per account	- £. 244 18 -		
	Interest on ditto	- 3 3 -		
	Landing charges, as per dock accounts	- - - -	248 1 10	
	Rent, &c., as per account	- - - -	19 1 10	
	Public sale charges, 38 lots at 2s. 6d.	- - - -	7 7 11	
	Brokerage, 1 per cent.	- - - -	4 15 -	
	Commission on 50 bales sent to Manchester	- - - -	20 11 3	
			2 10 -	
				302 7 -
	Prompt, November 2d, 1850.			£. 1,753 17 3

(Errors excepted.)

(signed) J. R. Tetley & Son.

ACCOUNT SALES of 50 Bales EAST INDIA COTTON, ex "Morayshire," from Cochin, sold in Manchester for account of the Honourable East India Company, by *Hugh Fleming*.

		Payment, ten days and three months.			
1850:				£. s. d.	£. s. d.
5 November	By S. & T. Ashton, for 20 bales:				
	N O F - 20 B. - Wg. 56. 3. 17. - 2. 3. 12. T. &c. } or 6,053 lbs. at 7½ d.			189	5 -
	54. 0. 5. Nett				
	Carriage - - - - -			1	5 11
					190 8 11
6 November	By Simon & Co., for 30 bales:				
	O O 30 B. - Wg. 85. 2. 7. 4. 1. 1. T. &c. } or 9,103 lbs. at 6½ d.			256	- -
	81. 1. 3. Nett				
	Carriage - - - - -			1	18 7
					257 18 7
	Charges: - - - - -				
					448 7 6
2 August	To carriage from London			11	5 11
	" portorage, weighing, sampling, &c.			1	5 -
	" fire insurance			-	18 6
	" commission, del credere, and brokerage on 448 l. 7 s. 6 d. at 3½ d. %			15	13 10
					29 3 3
	Nett proceeds averaging cash, 19 February 1851				419 4 3
19 November 1850.				(E. E.)	<i>Hugh Fleming.</i>

Sir,

WE beg to inform you that the "Morayshire" from Cochin arrived in the West India Docks last week, with the 289 bales of cotton, mentioned in your letter of 2d May last, which are landed, and we now send our report on quality, value, and condition of each mark, viz.—

Ditto 2d sort	N O F	Bales.	223	The staple is much cut in cleaning, very short and unsuitable for general purposes, but being very clean and bright in colour, having only a little leaf, will meet with good competition from buyers for wadding, at about 6½ d. per lb.
			5	Ditto ditto, with rather more leaf, 6 d.
Ditto, 2d sort	N O P		36	The staple is good, but rather light and slightly injured; perfectly clean and bright white; a very useful kind of cotton, and comes in competition with fair quality of upland; the value about 7½ d.
			23	The staple the same, but not so clean, and is rather stained and discoloured, 6½ d.
			2	The staple a little uneven, some leaf, and discoloured, 6½ d.
			289	

A great part of the above are landed in bad condition, as per statement at foot. Waiting your instructions for disposal,

We remain, &c.
(signed) *J. R. Tetley & Son.*

II.
Madras.

CONDITION.

			Slightly Damaged when Shipped.	Damaged by Sea Water.			
				Class 1.	Class 2.	Class 3.	Class 4.
	O O	223 bales	33	59	27	1	—
	2d sort,	5	—	2	—	—	—
	N O F,	36	—	11	2	—	—
	2d sort,	23	—	12	3	1	1
	N O P,	2	—	—	1	—	—
289 - sound, 136			33	84	33	2	1

London, 1st August 1850.

SOLD by order and for account of the Honourable East India Company at public sale this day:—

239 Bales of cotton (part of 289 bales) ex "Morayshire," from Cochin.

	Lot.	Bales.	s. d.		
			s.	d.	
	4	10	—	—	at 7 per lb., to E. Jacob & Co.
	5 to 10	58	—	—	T. Wade & Son.
	11	5	—	—	E. Jacob & Co.
	12	11 country damaged	—	6 $\frac{7}{8}$	} W. H. Blackmore.
	13, 14	22 - ditto	—	6 $\frac{3}{4}$	
	15	10 sea damaged	C. 1.	6 $\frac{7}{8}$	Bates & Sons.
	16	10 ditto	C. 1.	6 $\frac{3}{4}$	E. Jacob & Co.
	17 to 20	9 ditto	C. 1.	6 $\frac{7}{8}$	} W. H. Blackmore.
	21	10 ditto	C. 2.	6 $\frac{7}{8}$	
	22, 23	17 ditto	C. 2.	6 $\frac{3}{4}$	
	24	1 ditto	C. 3.	5 $\frac{7}{8}$	
Ditto, 2d sort	25	3 sound	—	6 $\frac{1}{2}$	} E. Jacob & Co.
	26	2 sea damaged	C. 1.	6 $\frac{3}{4}$	
	29	2 sound	—	8	
N O F	30	10 sea damaged	C. 1.	7 $\frac{1}{2}$	} W. H. Blackmore.
	31	3 ditto	C. 2.	6 $\frac{7}{8}$	
	32	7 sound	—	5 $\frac{7}{8}$	E. Jacob & Co.
Ditto, 2d sort	33	13 sea damaged	C. 1.	5 $\frac{7}{8}$	} W. H. Blackmore.
	34	2 ditto	C. 2.	5 $\frac{7}{8}$	
	35	1 ditto	C. 3.	5 $\frac{1}{2}$	
N O P	36	1 ditto	C. 4.	3 $\frac{3}{4}$	} W. H. Blackmore.
	37	1 sound	—	6 $\frac{7}{8}$	
	38	1 sea damaged	C. 1.	6 $\frac{3}{4}$	
239 bales.					

Prompt, 2d November 1850. The buyers to pay 1 l. per bale deposit on the 12th instant.
—Sale conditions.

(signed) J. R. Tetley & Son.

REPORT on the before-mentioned Cottons.

Ex "Morayshire."

N O F. Twenty bales grown from New Orleans seed.

Clean and bright in colour, moderate staple, a good and useful cotton, approaching to fair Bowed, but not equal in staple. Cotton of this quality much wanted.

O O. Thirty bales Oopum cotton; clean and bright in colour, staple very short, and much cut.

Ex "Llewellyn."

M C. Clean bright cotton without leaf, but short in staple, and very weak.

(signed) Hugh Fleming,
Secretary, Manchester Commercial Association.

ACCOUNT SALES of 7 Bales Cotton ex "Cheverell" * from Cochin.

II.
Madras.

Account of the Honourable East India Company, per J. R. Tetley & Son.

1850:	No. Bales.	d.	£. s. d.	£. s. d.
September 5	1 to 3 3	869 lbs. nett at 7 per lb.	25 6 11	
	NOF - 4 to 5 2	573 lbs. „ at 7½ „ lb.	17 18 1	
	2d sort } 6 to 7 2	585 lbs. „ at 6 „ lb.	14 12 6	
				57 17 6
	Freight, as per account	- - - -	7 2 10	
	Dock charges	- - - -	1 9 2	
	Rent from 14th August to 5th October,			
	8 weeks, at 5d. per ton per week, on			
	18.3.25 cwt.		3 2	
	Brokerage 1 per cent.	- - - -	11 6	
				9 6 8
				£. 48 10 10
	Prompt, 5 October 1850.			

ACCOUNT SALES of 8 Bales East India Cotton, ex "Llewellyn," from Madras, sold in Manchester for account of the Honourable East India Company, by Hugh Fleming, W.

1850:		£. s. d.	£. s. d.
November 4	By Grafton and Heron, for the whole 8 Bales,		
	23. 0. 9.; 1. 0. 16. T. &c. 21. 3. 21. nett,		
	or 2,457 lbs., at 6½d. - - - -	69 2 -	
	Carriage - - - -	10 - 5	
	Charges: - - - -		69 12 5
	To carriage from Liverpool - - - -	10 5	
	„ Portage, weighing, and sampling - - - -	4 -	
	„ Fire insurance, - - - -	4 3	
	„ Commission, del credere, and brokerage on		
	69 l. 12 s. 5d. at 3½% - - - -	2 8 10	
	Nett proceeds averaging cash, 17 Feb. 1851 - - - -		3 7 6
			66 4 11

(E. E.)

(signed)

Hugh Fleming.

19 November 1850.

The buyers to pay 10 per bale deposit on the 12th instant. Prompt 24 November 1850.

Sir,

London, 24 May 1851.

WE beg to enclose herewith the contract for the sale of the cotton per "Juliana" and "Trafalgar," which sold at the full market value, though much below the valuation given at the time of landing, owing to the great and rapid fall in the Liverpool cotton market.

We are, &c. (signed) J. R. Tetley & Son.

James C. Melville, Esq.,
East India House.

SOLD

* EXPLANATION OF THE MARKS BY DR. WIGHT:

O O. Purchased Oepum cotton, gin cleaned.
NOF. Farm-grown New Orleans.

II.
Madras.ACCOUNT SALES of 28 and 14 Bales Cotton, ex "Juliana", from T. Pettigrew & Co.,
London, 22 May 1851.Sold by Order and for Account of the Honourable East India Company, per Public
Sale this day.

669 Bales Cotton as under, viz.:

Per "Juliana"	Tinnevely Gin.	Lot.	BALES.	per lb.
		1 to 3	28	5
		4 to 23	200	4 1/2
		24	4 sampled	"
		25	10 sea damaged, Class 2	"
Per "Trafalgar"		26 and 27	21 ditto	"
		28	14 ditto	"
		29	2 second sort	"
		30 to 46	170	4 1/2
		47	5 sampled	"
		48 to 50	28	4 1/2
		51 and 52	7 sea damaged	"
		53	1 oil	"
		54 to 58	45	4 1/2
		59	2 sampled	"
		60	1 sea damaged	"
		61	1 ditto	"
		62 to 65	40	4 1/2
		66 to 69	35	4 1/2
		70	3 sampled	"
		71	9 sea damaged	"
		72	3 ditto	"
		73	1 second sort	"
		74	12	4 1/2
		75	4 sea damaged	"
		76	9 ditto	"
		77	2 ditto	"
		78 and 79	17	4 1/2
		80	1 sea damaged	"
		81	4	"
		82	1 second sort	"
		83	1 sea damaged	"
		84	1 ditto	"
		85	4	"
		86	3	"
		87	3	"
		88	2	"
		89	2	"
		90	1	"
		90*	1	"
			699 Bales.	

Prompt, 23 August 1851.—Sale Terms.

(signed) J. R. Tetley & Son.

To del credere, brokerage, and commission on 23d at 3d per cent.
To porters, weighing, and sampling
To carriage from London

ACCOUNT SALES of 28 and 1½ Bales Corron, ex "Juliana," from Tutacoreen.

Account of the Honourable East India Company, per *J. R. Tetley & Son*.

1851:		Lot	Bales.		£.	s.	d.	£.	s.	d.
May 22		1	10	2,946 at 5d.	61	7	6			
	Tinnevelly	2	15	4,431 "	92	6	3			
	Gin.	3	3	885 "	18	8	9			
		1½	146 "		3	-	10			
								175	3	4
	Freight, as per account				43	2	6			
	60 days' interest				7	1				
					43	9	7			
	Dock charges				3	6	-			
	Rent allowed				1	-	-			
	Public sale charges				-	7	6			
	Brokerage, 1 per cent.				1	15	-			
	Commission on 20 bales sent to Manchester				1	-	-			
								50	18	1
	Prompt, 23 August 1851.									
					£.			124	5	3

ACCOUNT SALES of 103 Bales Corron, ex "Juliana" and "Trafalgar," sold in Manchester for account of the Honourable East India Company, by *Hugh Fleming*.

1851:				£.	s.	d.	£.	s.	d.
May 8		Payment 10 days and 3 months.							
		By W. Morris, for 2 bales:		13	11	-			
		N O 2 B. 5. 2. 9. - 1. 4. - T., &c. 5. 1. 5. N, or 593 lbs. at 5½d.		-	1	5			
		Carriage					13	12	5
" 8		By Kelly & Gilmour, for 25 bales:		165	19	-			
		O O 25 B. 72. 2. 6. - 3. 2. 8. 8. - 68. 3. 26. or 7,726 lbs. at 5½d.		-	18	2			
		Carriage					164	17	2
" 12		By Kelly & Gilmour, for 9 bales:		56	2	-			
		N O P 9 B. 25. 1. 11. - 1. 1. 4. - 24. 0. 7. or 2,695 lbs. at 5d.		-	6	4			
		Carriage					56	8	4
" 12		By John Jones, for 5 bales:		34	6	-			
		N O P 5 B. 14. 2. 24. - 2. 24. - 14. 0. 0. or 1,568 lbs. at 5½d.		-	3	8			
		Carriage					34	9	8
" 20		By John Jones, for 5 bales:		30	17	-			
		GIN 5 B. 13. 3. 23. - 2. 24. - 13. 0. 27. or 1,483 lbs. at 5d.		-	3	6			
		Carriage					31	-	6
" 21		By Kelly & Gilmour, for 10 bales:		62	3	-			
		O O 10 B. 28. 0. 9. - 1. 1. 20. - 26. 2. 17. or 2,985 lbs. at 5d.		-	7	-			
		Carriage					62	10	-
" 24		By Edward Sidebottom & Sons, for 9 bales:		59	2	-			
		N O P 9 B. 26. 0. 1. - 1. 1. 4. - 24. 2. 25. or 2,769 lbs. at 5½d.		-	6	6			
		Carriage					59	8	6
" 27		By Kelly & Gilmour, for 23 bales:		144	11	-			
		O O 15 1/8 } B. 65. 0. 27. - 3. 1. 4. - 61. 3. 23. or 6,939 lbs., at 5d.		-	16	4			
		Carriage					145	7	4
" 29		By Kelly & Gilmour, for 15 bales:		83	19	-			
		GIN 15 B. 42. 0. 14. - 2. 0. 16. - 39. 3. 26. or 4,478 lbs. at 4½d.		-	10	6			
		Carriage					84	9	6
		Charges:							
May 5		To carriage from London		24	14	2			
" 5		To portage, weighing, and sampling		2	11	6			
" 5		To fire insurance and petty expenses		-	10	-			
" 5		To del credere, brokerage, and commission on 653l. 3s. 5d. at 3½ per cent.		22	17	3			
							50	12	11
		Net Proceeds, avg. cash, 23 August 1851		£.			602	10	6

(E. E.)

Manchester Commercial Association,
June 21, 1851.(signed) *Hugh Fleming*.

II.
Madras.ACCOUNT SALES of 147 Bales Cotton, ex "Countess of Zetland," from Cochin,
account of the Honourable East India Company, per J. R. Tetley & Son.

1851: 6 November	Lot.	Bales.	Lbs.	Per lb.	£. s. d.	£. s. d.
81 Bales	255	10 - -	3,033 at $4\frac{1}{4}d.$		53 13 1	
	256	10 - -	3,036	"	53 15 3	
	257	10 - -	2,972	"	52 12 7	
	258	10 - -	2,985	$4\frac{3}{8}$	54 8 3	
	259	10 - -	2,986	$4\frac{1}{4}$	52 17 6	
	260	10 - -	2,990	$4\frac{3}{8}$	54 10 1	
	261	10 - -	2,988	$4\frac{1}{4}$	52 18 3	
	262	5 - -	1,474	"	26 2 -	
	263	5 damaged	1,508	4	25 2 8	
	264	1 - -	297	3	3 14 3	
54 Bales	269	10 - -	2,999	$4\frac{1}{8}$	51 10 11	
	270	10 - -	2,993	"	51 8 10	
	271	10 - -	2,955	"	50 15 9	
	272	10 - -	3,009	"	51 14 4	
	273	4 - -	1,203	$4\frac{1}{8}$	20 13 6	
	274	5 - -	1,458	4	24 6 -	
	275	5 damaged	1,505	$3\frac{7}{8}$	24 6 -	
	277	1 - -	308	3	3 17 -	
NOP	278	6 - -	1,801	$3\frac{1}{4}$	26 5 3	
BP	281	1 - -	307	$4\frac{1}{4}$	5 8 9	
NOOBB	282	1 damaged	296	3	3 14 -	
OO 2d sort	283	1 - -	305	3	3 16 3	
NOP 2d sort	284	1 - -	309	$3\frac{1}{4}$	4 16 7	
OOM +	285	1 - -	305	$4\frac{1}{4}$	5 8 -	
OO + M						
Freight, as per account			£ 194 8			
87 days' interest on ditto			2 6 4			
					196 14 4	
Dock charges					14 16 1	
Rent on 147 bales					6 7 9	
Public sale charges, 24 lots, at 2s. 6d.					3 - -	
Brokerage, 1 per cent.					7 11 6	
Commission forwarding 96 bales to Manchester					4 16 -	
						233 5 8
Prompt, 7 February 1852.						524 9 5

ACCOUNT SALES of NOP 11 Bales of Cotton, ex "Countess of Zetland," sold in Manchester for
Account of the Honourable East India Company, by *Hugh Fleming*.

		Payment 10 days and 3 months.		£. s. d.	£. s. d.
1851:		By John Worthington and Sons for the whole:			
November 28	\$ 30. 3. 15.	1. 2. 8. T. &c.	- 29. 1. 7. net, or 3,283 lbs. at 4d. per lb.	54 14 4	
		Carriage	-	7 0	
					55 2 1
		Charges:			
		To carriage from London	-	1 18 7	
		To portage, weighing, sampling, &c.	-	5 6	
		To fire insurance	-	1 8	
		To commission, del credere, and brokerage on 55l. 2s. 1d., at 3½ %	-	1 18 6	
					4 4 3
		Net Proceeds, avg. Cash, 11th March 1852	-	£.	50 17 10

Manchester Commercial Association,
29 January 1852.

(E. E.)

(signed) *Hugh Fleming*.

ACCOUNT SALES of NOF 5 Bales of Cotton, ex "Countess of Zetland," sold in Manchester for
Account of the Honourable East India Company, by *Hugh Fleming*.

		Payment 10 days and 3 months.		£. s. d.	£. s. d.
1851:		By John Worthington and Sons, for the whole:			
November 28	\$ 14. 1. 6.	2. 24. T., &c.	- 13. 2. 10. net, or 1,522 lbs. at 3½ d. per lb.	22 4 -	
		Carriage	-	3 7	
		Charges:			22 7 7
		To carriage from London	-	17 11	
		To portage, weighing, sampling, &c.	-	2 6	
		To fire insurance	-	10	
		To commission, del credere and brokerage on 22l. 7s. 7d. at 3½ %	-	15 6	
					1 16 9
		Net Proceeds, avg. Cash, 11th March 1852	-	£.	20 10 10

Manchester Commercial Association,
29 January 1852.

(E. E.)

(signed) *Hugh Fleming*.

ACCOUNT SALES of OO 40 Bales of Cotton, ex "Countess of Zetland," sold in Manchester per
Account of the Honourable East India Company, by *Hugh Fleming*.

		Payment 10 days and 3 months.		£. s. d.	£. s. d.
1851:		By John Worthington and Sons, for the whole:			
November 28	\$ 112. 1. 25.	5. 24. T., &c.	- 106. 3. 1. net, or 11,957 lbs. at 4d. per lb.	199 5 8	
		Carriage	-	1 8 1	
		Charges:			200 13 9
		To carriage from Liverpool	-	7 - 1	
		To portage, weighing, sampling, &c.	-	1 - -	
		To fire insurance	-	6 - -	
		To petty expenses	-	1 6 -	
		To commission, del credere and brokerage on 200l. 13s. 9d. at 3½ %	-	7 - 7	
					15 8 2
		Net Proceeds, avg. Cash, 11th March 1852	-	£.	185 5 7

Manchester Commercial Association,
29 January 1852.

(E. E.)

(signed) *Hugh Fleming*.

II.
Madras.

ACCOUNT SALES of O O + 40 Bales of Cotton, per "Countess of Zetland," from Cochin, sold in Manchester for account of the Honourable East India Company, by *Hugh Fleming.*

1851:		Payment, 10 days and 3 months.		£. s. d.	
Nov. - 28		By John Worthington and Sons for the whole:			
		\$112. 2. 11. - 5. 2. 24. T. and D. - 106. 3. 15 net, or		199 10 -	
		11,971 lbs. at 4 d. -		1 8 2	
		Carriage - - - - -		200 18 2	
		Charges:			
		To carriage from London - - - - -		7 - 9	
		To portorage, weighing, sampling, &c. - - - - -		1 - -	
		To fire insurance - - - - -		6 - -	
		To petty expenses - - - - -		1 6 -	
		To commission, del credere and brokerage on 200 l. 18 s. 2 d., at 3½ % - - - - -		7 - 8	
				15 8 11	
		Net Proceeds, avg. Cash, 11 March 1852		£. 185 9 3	

Manchester Commercial Association, (E. E.) (signed) *Hugh Fleming.*
29 January 1852.

Sir,

Mincing Lane, 25 October 1851.

We beg to inform you that the "Countess of Zetland," from Cochin, has arrived in the St. Katherine Docks, with 243 bales of cotton, mentioned in your letter of the 25th ultimo, which are landed, and to each mark, as under, we add our report on the quality and present value, and remain,

Yours, &c.

(signed) *J. R. Tetley & Son.*

J. D. Dickinson, Esq., Assistant Secretary,
East India House.

	Bales.	per lb.
 O O + - -	121	Short staple, and a little cut with the gin, but well cleaned, except some small leaf; good colour - 4 d.
〃 O - - -	94	Ditto - - - ditto - - - ditto - - - 4 d.
〃 O P - - -	12	{ 11 good fine staple; very clean, and bright colour - 4½ d. 1 second sort, discoloured and stained - 3 d.
〃 P - - -	6	Short staple and little cut, but clean and good colour - 3½ d. to 3¾ d.
〃 O F - - -	5	{ 3 good fine staple, very clean and bright colour - 4½ d. to 4¾ d. 2 discoloured, second sort - 3½ d.
〃 O O O R -	1	Good staple, very clean and bright colour - 4½ d.
〃 O, 2d sort -	1	Inferior, discoloured - 3 d.
〃 O P, 2d sort	1	Middling, rather high coloured - 3 d.
O O M + -	1	Ditto a little leaf - 3½ d. to 3¾ d.
O O + M -	1	Good staple, clean and bright - 4½ d.
	243	Bales.

ACCOUNT SALES of 9 Bales of Cotton, ex "Aztec," from Madras, sold in Manchester for Account of the Honourable East India Company, by *Hugh Fleming*.

		Payment, 10 days and 3 months.		£. s. d.	£. s. d.
1851:					
December 16		By J. Howarth and Brothers for 3 bales:			
		Wg. 8. 1. 17. - 1. 20. T. and D. - 7. 3. 25. nett, or 893 lbs. at 4½ d.		17 4 -	
		Carriage - - - - -		2 1	
					17 6 1
"		By George Cheetham and Sons for 6 bales:			
		Wg. 17. 0. 4. - 3. 12. - 16. 0. 20., or 1,812 lbs. at 4½ d.		34 18 -	
		Carriage - - - - -		4 3	
					35 2 3
		Charges:			52 8 4
December 10		To carriage from Liverpool - - - - -		6 6	
"		To carriage in Liverpool - - - - -		1 1	
"		To portorage, weighing, sampling, &c. - - - - -		4 6	
"		To fire insurance - - - - -		1 7	
"		To commission, del credere, and brokerage on 52 l. 8 s. 4 d., at 3½ per cent.		1 16 8	
					2 10 4
		Net Proceeds, avg. Cash, 29th March 1852 - - -		£.	49 18 -

(E. E.)

Manchester Commercial Association,
11 February 1852.

(signed) *Hugh Fleming*.

ACCOUNT SALES, 9 Bales Cotton, ex "Empress,"* from Cochin. Account of the Honourable East India Company, per *J. R. Tetley & Son*.

		Bales.		£. s. d.	£. s. d.
1852:					
July 29		426 to 427 5 - 13 2 3			
		430 and 431 " - - 2 9 tr. 12/1 each.			
		12 3 22 - 1,450 lbs. at 5 d. per lb. -		30 4 2	
		428 and 429 4 - 10 2 7			
		432 and 433 - - 1 24 tr. 12/1 each. - -			
		10 10 11 - 1,181 lbs. at 3½ d. per lb. -		17 13 5	
		Pickings, 77 lbs. at 1 d. per lb. -		6 5	
		Freight, as per account -		5 14 11	48 4 -
		Dock charges, as per account -		1 17 10	
		Rent, 17 weeks -		9 -	
		Brokerage, one per cent. -		9 8	
		Prompt, 25th August 1852.			8 11 5
				£.	39 12 7

(signed) *J. R. Tetley & Son*.

* EXPLANATION OF THE MARKS BY DR. WIGHT:

- 2 Bales N O F, Farm-grown New Orleans, 2d sort.
- 1 Bale N O F O O, Farm-grown New Orleans and Oopum mixed, 2d sort.
- 1 Bale N O F, Farm-grown New Orleans, 1st sort.
- 4 Bales N O P, New Orleans purchased, 1st sort.
- 1 Bale N O P - - - ditto - - - 2d sort.

ACCOUNT SALES, 60 Bales COTTON, part of 115, ex "Waterloo," from Colombo, account of the Honourable East India Company, per *J. R. Tetley & Son*.

1852 :		Nos.	Bales.		£. s. d.	£. s. d.
August 25 -	Tinnevelly	1 to 58	58	165 2 11		
				17 3 2 tr. 14/1		
				157 3 9 - 17,677 lbs. at 4½ d.	349 17 2	
	"	109	1½	1 0 13		
				- - 12 tr.		
				1 0 1 - 113 lbs. at 4½ d.	2 4 9	
	NO	115	1½	1 0 15		
				0 0 12 tr.		
				1 0 3 - 115 lbs. at 2 d.	- 19 2	
				Pickings from sea damaged bales, 560 lbs. at 1 d.	2 6 8	
				Freight, as per account	£. 98 - -	
				Interest on ditto, 32 days	- - 8 7	
					98 8 7	
				Dock charges as per account	15 13 7	
				Rent, from 7 August to 25 September, 7 weeks	1 5 -	
				Brokerage, one per cent.	3 11 -	
				Commission forwarding 55 bales to Manchester	2 15 -	
						121 13 2
				Prompt, 25th September 1852.		
					£.	233 14 7

(signed) *J. R. Tetley & Son.*

ACCOUNT SALES of 52 Bales and three Half Bales of Cotton, ex "Waterloo," from Colombo, sold in Manchester, for account of the Honourable East India Company, by *Hugh Fleming*.

1852 :		Payment, ten days and three months.	£. s. d.	£. s. d.
2 Sept.	-	By Kelly & Gilmour, for 3 bales and 3½ bales: S G 5 B. wg. 9. 1. 22 G - 0. 2. 9 T & D - 8. 3. 13 Nett, or 993 lbs. at 5¼ d. Carriage	21 14 - - 2 4	21 16 14
3 Sept.	-	By the Hanover Mills Co., for 10 bales: G. I. N. 10. - 27. 0. 6 - 1. 1. 20 - 25. 2. 14, or 2,870 lbs. at 5 d. Carriage	59 15 - - 6 9	60 1 9
6 Sept.	-	By Geo. Clarke & Co., for 40 bales: G. I. N. 40 - 106. 1. 15 - 5. 2. 24 - 100. 2. 19, or 11,275 lbs. at 4½ d. Carriage	229 - - 1 6 7	230 6 7
		Charges:		312 4 8
		To carriage from London	10 3 9	
		- portage, sampling, and re-weighing	1 7 6	
		- fire insurance	- 8 6	
		- del credere, commission and brokerage on 312½ 4s. 8d. at 3½%	10 18 6	
				22 18 3
		Net Proceeds, averaging Cash, 18 December 1852 - - - £.		239 6 5

Manchester,
23 Sept. 1852.

(E. E.)

(signed) *Hugh Fleming.*

ACCOUNT SALES 49 Bales Cotton, ex "Rubicon," from Cochin, for account of the Honourable East India Company, per J. R. Tetley & Son.

1853:	No.	Bales.			£.	s.	d.
April 27.	1 to 10	10	28	1 0			
	11 to 20	10	28	0 22			
	21 to 31	11	31	1 9			
			87	3 3			
			4	1 20 p. 15/1			
			83	1 11 or 9,335 lbs., at 5½ d.	204	4	1
	72 to 73	2 damaged	5	3 17			
				1 4 p. 15/1			
			5	2 13 or 629 lbs., at 3½ d.	9	3	1
	74 to 83	10	28	0 25			
	84 to 86	3	8	1 27			
			36	2 24			
			1	3 25 p. 16/1			
			34	2 27 or 3,891 lbs., at 2½ d.	46	12	2
			8	1 26			
				1 23 p. 16/1			
			8	0 3 or 899 lbs., at 2½ d.	10	6	-
							270 5 8
	Freight, as per account per bill of lading				62	6	-
	Interest on ditto, 99 days				16	10	
	London Dock charges				9	18	8
	Rent from 9th March to 28th May, 12 weeks				1	14	9
	Brokerage, 1 per cent.				2	14	-
	Commission on forwarding 40 bales to Manchester				2	-	-
							79 10 3
	Prompt, 30th July 1853.				£.	190	15 5
				E. E.			
				(signed)	J. R. Tetley & Son.		

ACCOUNT SALE of 40 Bales of Cotton, ex "Rubicon,"* from Cochin, sold in Manchester, for account of the Honourable East India Company, by Hugh Fleming.

1853:		Payment, ten days and three months:	£.	s.	d.	£.	s.	d.
3 May	-	By George Cheetham and Sons, for the whole 40 bales, wg. 113. 1. 24						
		5. 2. 24 T & D - 107. 3. 0 Nett, or 12,068 lbs. at 4½ d.	232	11	-			
		Carriage	2	2	6			
						234	13	6
		Charges:						
		To carriage from London	7	-	10			
		- fire insurance		-	3 10			
		- portorage, sampling, and re-weighing	1	-	-			
		- commission, del credere, and brokerage or 234 13 s. 6 d., at 3½ per cent.	8	4	3			
						16	8	11
		Nett proceeds, averaging cash, 16 August 1853	-	-	£.	218	4	7
		(E. E.)						
		(signed)	Hugh Fleming, Secretary.					
		Manchester Commercial Association,						
		30 June 1853.						

Sold by order, and for account of the Honourable the East India Company, viz.,
ex "Rubicon," from Cochin.



31 bales cotton - - - - - at 5½ d. per lb.
2 ditto sea damaged, 4th class - - - - - at 3½ d. -
16 bales cotton. - - - - -
2 Very inferior and much discoloured - - - - - at 2½ d. -

(signed) J. R. Tetley & Son.

Prompt, three months, customary terms.

* EXPLANATION OF THE MARKS RECEIVED FROM DR. WIGHT:

73 bales. NO - - - - - New Orleans purchased, 1st sort.
1 - - - - -
16 NO - - - - - ditto - - purchased, 2d sort.
2 - - - - -

